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Essay Index Reprint Series

BOOKS FOR LIBRARIES PRESS, INC.
FREEPORT, NEW YORK

(Originally published by Oxford at the Clarendon Press)

108
Ox2

First Published 1924
Reprinted 1966

[General title page added for this reprint edition]

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Printed In The United States of America

THE UNKNOWABLE

THE HERBERT SPENCER LECTURE

DELIVERED AT OXFORD, 24 OCTOBER, 1923

BY

GEORGE SANTAYANA, M.A., PH.D.

Formerly Professor of Philosophy in Harvard University

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THE UNKNOWABLE

YOUR kind invitation to deliver the Herbert Spencer Lecture of this year, apart from the honour and pleasure it brings me, enables me to perform a small act of piety. On the whole, with qualifications which will appear presently, I belong to Herbert Spencer's camp; and I am glad of so favourable an opportunity to offer a grain of propitiatory incense to his shade, which I feel to be wandering in our midst somewhat reproachfully. Fashion has completely deserted him, and the course of evolution in which he trusted has not taken his hints. Even where some philosophy of evolution is still in vogue, it is not his philosophy, but perhaps that of Hegel or Bergson, who conceive evolution as imposed on nature by some magic or dialectical force, contrary to an alleged helplessness in matter. Such devices were far removed from the innocence of Herbert Spencer, who dutifully gathered reports from every quarter and let them settle as they would in the broad levels of his system, as in geological strata; whence that Homeric sweep with which he pictures progress and decay, not in aversion from the severities of natural existence, but as the mechanical sediment of the tides of matter and motion, perpetually surging. Of course this epic movement, as Spencer describes it, is but a human perspective; he instinctively imposes his grandiloquent rhythms on things as he does his ponderous Latin vocabulary, or as Empedocles or Lucretius imposed their hexameters; but that is the case with every human system; it is and

can be nothing but human discourse. Science and philosophy cast a net of words into the sea of being, happy in the end if they draw anything out besides the net itself, with some holes in it. The meshes of Spencer's net were not subtle; a thousand amiable human things slipped through them like water, and compared with the studied entanglements of more critical systems, his seem scandalously coarse and wide: yet they caught the big fish. When I rub my eyes and look at things candidly, it seems evident to me that this world is the sort of world described by Herbert Spencer, not the sort of world described by Hegel or Bergson. At heart these finer philosophers, like Plato, are not seeking to describe the world of our daily plodding and commerce, but to supply a visionary interpretation of it, a refuge from it in some contrasted spiritual assurance, where the sharp facts vanish into a clarified drama or a pleasant trance. Far be it from me to deride the imagination, poetic or dialectical; but after all it is a great advantage for a system of philosophy to be substantially true.

In political speculation, too, the times have turned their back on Herbert Spencer. Everything he saw waxing is now visibly waning: liberalism, individualism, faith in science, complacency at recent progress, assurance of further progress to come. Doubtless it is fortunate for those who are not philosophers to share unreservedly the spirit of their age. It must be exhilarating to stand on the hill-tops and point the way to future generations, when you are confident that future generations must anyhow take that road. Such prophets have their reward. They have seemed leaders in their day, they remain its representatives, and hereafter they may prove a landmark to the historian or a find for the antiquary.

Time also has its revenges, and after an honest man has been laughed at for a century or two as a simpleton or a scholastic, his turn may come round again, and he may find keen advocates and young defenders. But frankly, if in some respects Herbert Spencer's views have so soon grown obsolete, I think he deserved his fate. A philosopher should not be subject to the mood of the age in which he happens to be born. When a man swims to eminence and to joyous conviction on the crest of that wave, he must expect to be left high and dry at the ebb-tide. A believer in evolution is indeed justified in assuming that the latest view and the latest practice are the best so far; but in consistency he must admit that the next view and subsequent practice will be better still; so that his real faith is pinned by anticipation on an ultimate view and an ultimate practice, in which evolution will reach its goal. Evolution, in the proper sense of this word, is not a mere flux expected to be endless; evolution must have a goal, it must unfold a germ in a determinate direction towards an implicit ideal; otherwise there would be no progress involved, no means of distinguishing changes for the better from changes for the worse. I think it was a merit in Spencer to admit that evolution would culminate in a state from which any deviation would be decay; and he not only admitted such a goal in the abstract, but conceived it clearly. The goal was vital equilibrium, the adjustment and adaptation of living beings to their environment, or of their environment to them. The end of progress was harmony, that celestial harmony spoken of by a very different philosopher, which ran through all the gamut of the worlds, the diapason ending full, not exactly in man, but in any and every creature that might achieve a perfect harmony in

nature. This confirms what I was saying just now about a system of philosophy—this philosophy of evolution, for instance—being but a human perspective. For the reindeer or the polar bear, evolution culminated in the glacial period; it culminated in the cities of Greece for one sort of man; it will culminate in other perfections, if there is plasticity enough in living creatures to adapt them to their conditions, before these conditions have passed away. Evolution, for any observer, will mean that strain in the total movement of nature which has ministered to the formation of his spirit, and to its full expression.

It is not, however, as a philosopher of evolution or as a political prophet that I wish to consider Herbert Spencer. I should like to confine myself, if it were possible, to one point in his system, not especially characteristic of his age nor of ours, a point in which he seems to me to have been a true philosopher such as any age might produce; for if nature has made a man observant, intelligent, and speculative, the times cannot prevent him from being so. I refer to his belief in a substance which by its secret operation, in infinite modes, kindles experience, so that all phenomena as they appear and all minds observing these appearances are secondary facts and not, as is often alleged, the fundamental or only realities. On the contrary, any experience is incidental to animal life and animal passions, which in turn are incidental to the general flux of substance in the world. Appearances and feelings and consciousness itself are in their nature desultory and unsubstantial, yet not groundless nor altogether mad, because substance creates and sustains them by its steady rhythms, so that they are truly expressive and, when intelligence arises, may become terms and symbols in true knowledge.

This is of course no new doctrine, but as old as the hills. It is an opinion which any man, if not otherwise prejudiced or indoctrinated, might well come to by himself. It was embraced by Spencer as a matter of course, and held perhaps all the more resolutely because he was not too respectful of academic tradition. Had he been expert in metaphysics and educated at a university, he might have missed the obvious.

Unfortunately, in wishing to pick out from Spencer's system this one ancient and familiar belief, and to defend it, I am arrested at once by an untoward circumstance. Herbert Spencer called this substance beneath all appearances the Unknowable. This negative appellation is evidently drawn from a critical and subjective philosophy, such as Spencer's was not. It belongs to the vocabulary of disappointment; it is a romantic word. It transports us far from the region of eager inquiry, experiment, statistics, miscellaneous information, and scientific enlightenment in which Spencer's other theories had bloomed. Why this anomaly? Why any metaphysical preface at all to a work of straightforward natural philosophy?

I think the reason was that Spencer, not being by nature a logician, bowed in logic to casual authorities, and relied too much, in this subject too, on the fashion of the hour. He supposed, as some do to-day, that the latest logic was the last. Dean Mansel, Sir William Hamilton, and Kant would never be superseded. He hardly considered the atmosphere, the implications, or the contradictions of the doctrines he quoted from those worthies; he appealed to them on one point, in order to discredit all their other arguments. Metaphysics should be proved, out of the mouths of the metaphysicians themselves, to be incompetent to revise his scientific

speculations, or to refute his conclusions. He hardly cared, therefore, if the language of his metaphysical preface was that of his natural enemies, and perverse essentially: that fact seemed almost an advantage since it locked the gates against those enemies with their own bolts.

Yet words are weapons, and it is dangerous in speculation, as in politics, to borrow them from the arsenal of the enemy. In consenting to call substance unknowable, Spencer exposed himself to the derisive question how, if substance was unknowable, he ever came to know of its existence. Indeed, if the epithet were taken strictly, it would positively contradict and abolish belief in that tremendous reality on which he bestowed it, partly perhaps in reverence, and partly in haste to be done with reverence and to come to business. But Spencer did not take the epithet strictly, since he spoke of *modes* of the unknowable and regarded phenomena everywhere as its manifestations; and if we take the word knowledge in its natural sense (of which I shall speak presently) it is hard to see how anything could be better revealed than by being manifested everywhere. The fact is that relative and oblique designations, such as the unknowable or the unconscious, cannot be taken strictly: they cannot be intended to describe anything in its proper nature, but only in its accidental relation to something else—to a would-be knower who is unable to know it, or to an ulterior sensibility which as yet has not arisen. Nothing can be intrinsically unknowable; for if any one was tempted to imagine a substance such that it should antecedently defy description, inasmuch as that substance had no assignable character, he would be attributing existence to a nonentity. It would evidently make no difference in the universe whether a thing

without any character were added to it or were taken away. If substance is to exist, it must have a character distinguishing it from nothing, and also from everything else. In saying this I do not mean to ignore those renowned philosophers who have maintained that the entire essence of substance is pure Being: I can easily conceive that in some other world pure Being should be all in all. Pure Being is itself a particular essence, the simplest essence of all, clearly distinguishable, both in definition and in experience, from every other essence, and loudly contrary to nothing, with which Hegel would identify it, not (I think) honestly: and if pure Being by chance were the essence of substance, substance would be so far from unknowable that it would be thoroughly well known, and we should always carry with us, as Spinoza observes, an adequate idea of it. That the substance of this world has a far more elaborate nature I believe can be easily proved; but I cannot enter here into that argument. It is easy to conceive, however, that the intrinsic nature of substance may be very recondite and very rich, so that the human mind has no occasion and no capacity to describe it adequately—and this perhaps comes nearer to Spencer's intention in calling it unknowable. In this sense not only God but the remoter parts of space and time, and probably the depths of matter, would be unknowable to man. Even then, however, the intrinsic nature of substance could offer no resistance to being discovered, if any one had the means and the wit to do so; and if substance remains largely unknown to mankind, the reason will not be any recalcitrancy on its part, but rather a casual coincidence in ourselves of curiosity with blindness, so that we earnestly desire to search the depths of substance, but cannot.

In this measure the emotion suggested by the term unknowable is a legitimate emotion. It expresses an integral part of the tragedy involved in being finite and mortal—perhaps in being a mind or spirit at all. Poets and philosophers sometimes talk as if life were an entertainment, a feast of ordered sensations; but the poets, if not the philosophers, know too well in their hearts that life is no such thing: it is a predicament. We are caught in it; it is something compulsory, urgent, dangerous, and tempting. We are surrounded by enormous, mysterious, only half-friendly forces. This is our experience in the dilemmas of conduct, in religion, in science, and in the arts; so that the usual sequel to agnosticism, when impatient people deny that the unknown exists, far from being a rational simplification, is a piece of arrant folly: one of those false exits in the comedy of thought which, though dramatic, are ignominious, because the mind must revert from them to the beginning of the scene, and play it over again on some other principle. All the reasons that originally suggested the belief in substance remain unimpaired, and suggest the same belief again and again. We are not less dependent than our forefathers on food, on circumstances, on our own bodies; the incubus of the not-ourselves is not lifted from us; or if in some respects we have acquired a greater dominion over nature, this only adds positive knowledge of substance to the dumb sense we had before of its environing presence. How far this understanding of substance shall go depends on the endowment of the proposed knower, and on the distance, scale, and connexions of the things he is attempting to describe. How far knowledge is possible, therefore, can never be determined without first knowing the circumstances; and the very notion of knowledge

—by which I do not mean mere feeling or consciousness, but the cognizance which one existence can take of another—is a notion that never could be framed without confident experience of sundry objects known and of persons able to know them.

In saying this I am not merely expressing my own view of the matter; I am thinking of the agnosticism prevalent in Spencer's generation. It was no general scepticism; it did not, even in Kant, challenge the possibility of knowledge on account of the audacious claim which all transitive or informing knowledge puts forth in professing to report and describe something absent. On the contrary, such transitive and informing knowledge was still assumed to exist; the essential miracle of it was not denied, because it was not noticed. Everybody was assumed to know his own past, not merely to imagine it; everybody was assumed to know, not merely to imagine, the conscious existence of others, and the laws and phenomena of nature *ad infinitum*. But all these known facts, however remote and unobservable, were phenomena that had appeared, or might have appeared, to some human mind. What was condemned never to be known was only the environment of this experience, which experience had always supposed it possessed and observed, and which had been called matter, God, or the natural world. Yet the existence of these objects was not denied: had there really been no God, no matter, and no natural world, I do not see how incapacity to discover them could have been called agnosticism. The agnostic was haunted by ghosts of substance, filling his whole experience with a sense of discomfort, ignorance, and defeat. Those substances were real but elusive; and though he never saw them, the agnostic remembered only too well the tales once

told concerning them, and secretly desired to have assurance of their truth; only he thought such assurance was eternally denied him by his psychological constitution. As speech has been called a means of concealing thought, so knowledge was a screen cutting off reality. Evidently this agnosticism, besides assuming true knowledge of much absent experience, presupposed accurate knowledge of the human mind and its categories, conceived to be unalterable; and it also presupposed a definition of that veiled reality definite enough to assure us that no definition of it would ever be given.

So much sure knowledge at home had a tendency to console the agnostic for his ignorance abroad. If metaphysics had closed its doors upon him, science was inviting him to a feast. Science was then believed to be so clear and unquestionable, and practically so beneficent, that human life would presently be filled to the brim with busy knowledge, busy wealth, and busy happiness. Mankind being thus happily occupied, like the busy bee, would have no reason to regret its ignorance of what did not concern it. Yet this contentment in agnosticism, so wise in its humility and so natural in an age of material progress, is fatal sooner or later to agnosticism itself. If you are not a wistful and distressed agnostic, you will forget ere long that you are an agnostic at all. Why should you believe in those ghosts of substance, if you never see them? There were once, or there seemed to be, substantial and formidable realities which everybody was sure of—God, matter, the natural world; but after literary psychology had proved that you could know nothing but your own ideas, and you found that, in spite of your incredulity, these ideas continued to flow as pleasantly as ever, what reason

could you have to imagine the existence of anything else? Thus the agnostic who has lost his sense of bereavement will readily revert to dogmatism. He will relapse into the innocent habit of mind which regards what we see as existing substantially, and what we do not see as nothing.

You will not expect me, in these few minutes, to discuss the logic of idealism, but it is interesting to note how two important phases of this logic reappear in Spencer. One phase is the Socratic doctrine that knowledge is recognition. To know a thing, according to this view, is to be able to say what it is; in other words, to name and to classify it. The logical conclusion from this was drawn by Plato. He saw that the only true objects of knowledge were the types of being which we recognized things to possess. These types he called Ideas; earthly and transitory things could be understood only in so far as one or another of these Ideas was illustrated in them, or at least suggested by them in their confusion and imperfection. There is a curious approximation to this view in the Spencerian cosmology, where various principles of evolution are traced through all departments of nature, and represented as a sort of framework of eternal necessity on which the frail web of phenomena is stretched, and must be stretched in all future time. Law is the modern equivalent for the Ideas of Plato: there is no reason, save the plastic habit of the Hellenic imagination, why forms of motion or of relation should not have been counted amongst Platonic Ideas as honourably as the forms of animals or the categories of language. The radical divergence of modern rationalism from that of antiquity comes at another point. The modern is an agnostic in his idealism; he is subjective; he cannot

believe that the laws that hold the world together are its true substance. They seem to him evidently figments of the mind, and he is driven to put substance in some nearer plane, a plane which on Socratic principles would be unknowable, since only laws or types of being can be defined in thought.

The other phase of idealistic logic which enters into Spencer's agnosticism is sensualism, or the doctrine that the only object of knowledge is the datum of sense. It is usual to identify this datum of sense, which is properly a visionary essence, with the sensation which reveals it, a sensation which is an event in somebody's personal experience and an historical fact. Sensations will then seem to be the substantial facts; for although they will remain unknowable in the sense of being indefinable, they will be felt and found, each at its own time; and this is the empirical criterion of reality and knowledge. But it is not clear how one sensation can know another, or in what medium, if sensations are the only reality, they can arise or can be related; and a bottomless abyss of scepticism opens before any one who takes the doctrine seriously that nothing can exist except sensations, each knowing itself only. Spencer was spared these perplexities by his robust faith in substance. Deeply influenced as he was by his idealistic friends, he could not forget that sensations had roots. They expressed bodily states, and effects of the environment. But as only laws or Platonic types could be defined, and only sensations could be felt, and as feeling and defining were the sole ways of knowing admitted by the two schools of idealistic logic, Spencer was confirmed in his conviction that only appearances were knowable. To be known in either of those ways is incongruous with the nature of substance. This fact does not militate

against its existence; it militates against the illusion that anything existent can be known in either of those ways. What jurisdiction can any feeling have, or any logic, over what shall arise or not arise in the universe? Even when we assert that the self-contradictory cannot exist, I suppose what we mean, if we are reasonable, is that some notion of ours, which contradicts itself, cannot be the true or complete description of the object we mean to describe by it. But often the objects to which we attempt to apply such notions are the things most indubitably existing in the world, such for instance as motion, and as this very fact of knowledge which we are now trying to understand. Motion and knowledge are facts perfectly notorious and familiar, although several great philosophers deny them to be possible, because the definitions they have given of them are self-contradictory. It is nothing against the existence of such things that they should be inexpressible in the terms of a particular logic, or unknowable to a stone. The lack of possible communication between two creatures is not necessarily a reproach to either. Even when they are sensitive, and are intelligent enough to take their sensations for signs of an external agent, the connexion may be too slight, or the scale too different, for mutual knowledge to be possible or important. But when it is important it is usually possible. We need but to sharpen our wits, and shake our minds loose from prejudice, trying new categories, until we come nearer to the heart of those substantial dynamic objects which confront us in action. This approach need not be by a miraculous divination of their essence, although when the object recognized is a mind like our own, such literal divination is not impossible. Usually, however, the approach is by refinements of adaptation, as in the moods and tenses

of verbs, or the application of mathematics to nature; there is no similarity established of a pictorial sort between the symbol in the fancy and the fact in the world, but only a methodical correspondence in some one direction. If, however, we find that our senses and our logic are obdurate and incapable of further adaptations, we may reflect that all knowledge of fact, by its very privilege of transcending the data, is condemned to be external and symbolical, and that the most plastic and penetrating intellect, being still an animal function, will never discover the whole of things, either in their extent or in their structure. Things will not be unknown, since notice will have been taken of them and their appearance, in some respect, will have been recorded; we shall understand that there is one strain, at least, in their constitution and movement fitted to provoke our perception and to render our description applicable and correct. Even that intrinsic character of things, which remains undiscovered or inexpressible in our particular language, is a perfectly knowable character, and would be disclosed at any moment, in any particular, if a new observer turned up with the requisite organs, and a more sympathetic imagination.

Calling substance unknowable, then, is like calling a drum inaudible, for the shrewd reason that what you hear is the sound and not the drum. It is a play on words, and little better than a pun. In the sense in which what is heard is the sound, hearing is intuition: in the sense in which what is heard is the drum, hearing is an instance of animal faith, of that sort of perception which includes understanding and readiness to assume much that is not perceived, and to act on that assumption. Certainly if nature had confined our cognitive powers to intuition of absolute data, and we were

incorrigibly aesthetic idiots, substance would be unknowable to us; but in that case we should not be agnostics about substance, since we should have not the least inkling that such a thing might exist, nor the least notion of its nature. But mankind has always had ideas of matter, of God or the gods, and of a natural world, full of hidden processes and powers; these objects, just because they existed, were necessarily removed from intuition; but everybody knew the quarter in which they lay and the circle of experiences in which each of them was manifested. Everybody knew what he meant by believing in them, and what sort of things they would be if it was really on them, and not on something quite different, that his action was directed. For instance, at this moment, not being able to discard the rude logic of my animal ancestors, I think I find indications before me of the four walls of this room and of you sitting within them, both you and the walls being possessed of a substantial existence, that is, having existed prior to my arrival in Oxford and existing apart, even now, from my summary intuitions of you, vague symbols to me of your being and of your presence. Nor does the equal substantiality which I attribute to you and to the walls at all imply an identity of nature between the two. On the contrary, I should be utterly lacking in sanity, as well as in civility, if I now turned my back upon you and addressed the wall; yet on the hypothesis that my perceptions do not convey knowledge of substance, but are intuitions of pure ideas, it would be equally vain to address myself to you or to the wall, since in either case I should be haranguing my own sensations. The fact that substantial, and substantially different, realities must be posited beyond myself and my data, one sort amenable to persuasion

and the other deaf, is something I assume because the enterprise of life in me at this moment demands that I should do so. I am pledged by my instant adventure and by the general art of living (which has a groundless ascendancy over all animals) to take for granted that you are sitting there, admirable in your patience and inscrutable in your thoughts; and that just as in speaking to you I posit your substantial existence, so you in your turn are kindly positing mine, over and above the volatile sounds which you actually hear: and I am sure you are intelligently recognizing me and my thoughts very much for what we really are.

Thus the Spencerian Unknowable is unknowable only to idealists, who identify knowledge with intuition, and, if they are consistent, deny the capacity of thought to indicate anything external, whether an event, a substance, or another actual thought. But these objects withdrawn from intuition are the objects of daily knowledge and of science: and Spencer believed he knew them very well. The scruples that made him substitute the word unknowable for the word force or the word force for the word matter, were the scruples of an idealist, such as he did not intend to be. They sprang from the habit of reducing things to their adventitious relation to ourselves, the habit of egotism; as if the difficulty we may have in approaching them could constitute their intrinsic being.

There was, however, a motive of quite another sort leading Spencer to disguise the substance of things under the name of the Unknowable. He wished to reconcile science with religion. It is easy to deride this pretension in one who had so little sympathy with religious institutions and with religious experience. Religion in the mass of mankind has never been a mere

sense of mystery. It has been a positive belief, and an experimental effort, directed on the means of salvation. A prophet, conscious of some promise or warning conveyed to him miraculously, cannot substitute for this specific faith an official assurance that science will never quite succeed in dissipating the mystery of things: it is not what he will never know that interests him, but what he thinks he has discovered. Genuine religion professes to have positive knowledge and to bring positive benefits: it is an art; and to ask it to be satisfied with knowing that no knowledge can penetrate to the heart of things is sheer mockery: the opposite is what religion instinctively asserts. Like science, religion is solid only in so far as by faith and art—the two wings of true knowledge—it can really survey human destiny and reveal the divine decrees on which human destiny depends. And yet I think that Herbert Spencer, in throwing somewhat contemptuously that sop to religion, was in fact silently reconciling religion with science behind his back and without suspecting it. The substance envisaged in science and that envisaged in religion have always been the same. The paths of discovery are different, but, if they convey true knowledge, they must ultimately converge upon the same facts, on the same ground of necessity in things. In the recognition of a universal substance far removed from the imagination and the will of men, yet creating this will and imagination at the appropriate places, and giving them their natural scope, there lies a quite positive religion, and by no means a new one. Substance, if we admit it at all, is by definition the source of our life and the dispenser to us of good and evil. Respect for it, then, is the beginning of wisdom, and harmony with it is the sign of salvation. I do not mean to suggest

that *all* religion is addressed to such a real and formidable object. There are strains in religion of quite another quality. There is, for instance, a rapturous strain, the impulse to praise, to sing, to mythologize, to escape from all the limitations and cares of mortality into an ecstatic happiness. But I ask myself this question: What would ecstasy be but madness if it were not the voice of a substantial harmony with the substance of things and with its movement? Though substance may be forgotten, and only light and music may seem to remain, it is the massive harmonies in substance that justify those mystic feelings, if anything justifies them at all. If the spheres did not revolve according to law, the morning stars would not sing together; and the God of Aristotle would not think his eternal thoughts. Even enthusiasm, therefore, when not vapid, expresses respect for substance and happy union with its motion. Those prosaic terms of Spencer's—adaptation and equilibrium—really express admirably the basis of the most ecstatic emotions, when they are healthy and deserving of a place in human economy. It would be a sad compliment to pay to religion to identify it with fatuous and ephemeral heats, divorced from all perception of substance and of its true fertility. Religion of the sober, practical, manly sort, Roman piety, is emphatically reverence for the nature of things, for the ways of substance. How far such manly piety may have been misled by superstition, or by hasty and sentimental science, so as to distort the laws of the world and found a *false* religion, is a question of fact for soberer science to examine. If a traditional deity proves to be a living power, if it is the whole or a part of the substance actually confronting us, then serious piety will revere that deity and meditate on its ways. If on the contrary the only substance that

controls our destiny or can reward our obedience is a natural substance, manifested in all nature and plastic to common arts, then a serious piety will study the ways and sing the praises of this natural substance. Piety is on the side of belief in substance: the existence of substance is the basis of piety. To set up in the place of substance any spontaneous ideas or pert exigences of our own is contrary to religion: a mind that professes to create matter, to create truth, and to create itself is a satanic mind. At least Lucifer and the ancient sceptics were disinterested, and disdained a world in which they did not believe; but modern rebels, religious or political, are without asceticism; like Doctor Faustus they are crammed with pretentious learning, they trust in magic and in their own will, covet all experience, and hanker for the promised land; but they will never see it except in a mirage if, in contempt of substance, they merely command it to appear.

There is a maxim which counsels a man lost in a wood to walk on steadily in any one direction, no matter which, lest by turning and turning in a circle he should never come out into the open. Spencer might have followed this maxim to advantage, and by sticking to his own cosmic principles he might have arrived at a theory of substance and of knowledge which would have been adequate to the facts, and potentially just also to the experience and logic of idealism (which are pathetically human), without departing at any point from the method of external observation or the doctrine of natural evolution. Knowledge, whatever else it may be, is certainly an incident in life. If all things were dead, no one of them could know another, much less itself. Now of the nature of life Spencer had a very just, if external, conception: life is a form of adaptation, a moving equili-

brium, an adjustment of inner to outer relations. If a dog winces when struck, he is alive and has felt the blow; if a fly, when you try to catch it, escapes by flight, it has perceived the hand descending upon it. I am far from wishing to maintain a behaviourist psychology, or to say that in such observable cases of knowledge there is nothing that is not observable; on the contrary, I believe that every natural event has several ontological dimensions: it moves in the realm of matter, it is definable in the realm of truth, perhaps it flashes and burns for a moment in the realm of spirit, forming an actual feeling or thought. But the material facts, which biology might survey, are sufficient to determine the distribution of life and knowledge, as well as the distribution of all the other dimensions and values which the facts may involve. The state of our organs determines our sensations; our actions, or our perceptible impulses to act, determine our passions; our words enact and define our thoughts. Knowledge in its natural basis, bearing with it all its spiritual accompaniments, is thus a perfectly ascertainable fact of natural history. It is a relation of living bodies to their environment, such that the acts and words flowing from the body fit their external occasions, changing in a way relevant to these occasions but prompted by the native impulses of those bodies. Apart from such external adjustments there would be no telling whether the inner visions of any mind were knowledge or not. Intrinsically they are dream-images in any case; and they would never be anything more if directly or indirectly, by the action which accompanies them, they found no point of application in the material world.

The question what is knowable and what unknowable to any animal is accordingly easily answered by a biolo-

gist enjoying the requisite facilities for observation: if an animal possesses organs capable of discriminating response to a determinate thing, that animal can know this thing: if on the contrary the presence of this thing in influencing the animal materially does not stimulate any reaction focused upon that thing—any turning, or visible contemplation, or defensive movement, or pursuit—then the thing in question is unknowable to that particular animal, and can never become an object of his thought, action, or desire. In the first case, when a fit reaction occurs, any sensuous image or any logical system which might then fill the mind would express that reaction; and this expression would not be meaningless to the active animal in whom it arose; he would instinctively understand it to be the voice of the substance confronting him, his opposite partner in the dance. Having announced its presence, and provoked in its host some reaction of sense or fancy, that neighbour substance will have revealed itself in the only way in which anything existent and collateral can be revealed at all—by producing some slight disturbance, which in an active animal calls attention to its source; so that the intruder acquires a reputation for good or ill, and a character in the social world.

Human experience is filled full with such appropriate comments on neighbouring modes of substance, and with appropriate names and sketches clapped upon events. Amongst these signs and tokens there are some especially venerable symbols, those same ideas already mentioned of matter, of God, of the natural world, of various persons and passions. These venerable symbols are characters attributed to substance and its modes by the human imagination, after long experience and much

puzzled reflection: the degree of truth and precision which they may possess will naturally vary, partly with the articulation they receive—the more articulate, the truer or the falser they will become—and partly with the range of substantive being to which they are applied. Intrinsically they are all poetic ideas, fictions of the fancy; a fact which does not prevent them from being true symbolically and even literally, if they are so happily framed as to attribute to substance no character which substance does not actually possess.

When people discuss the existence of matter or the existence of God, the problem does not seem to me to be well stated. It is as if we began to discuss the existence of our friends. In the material locus in which we place the persons of our acquaintance there is undoubtedly something, and not something of any sort, but a mode of substance with precisely the active powers exerted upon us from that quarter. This reality is no less real than ourselves, being in dynamic interplay with the substance of our own being. To deny the reality of one's friends, though possible to a determined sceptic, is idle and in the end dishonest; because we can be sure of nothing and can believe nothing, if we do not allow ourselves to believe and to be sure that we are in contact with a substance not ourselves when we fight, love, or talk. This substance may be recognized and named without being at all comprehended; merely the different instincts awakened in its presence may suffice to distinguish it clearly, as when a child says John, mother, dog. It does not follow that these names, and the sentiment each mutely awakens, are similar to the substance they indicate, or form any part of that substance. Even the barking of the dog, not to speak of the dog himself, is not very like the bow-wow of the

childish vocabulary. I see no necessity that our ideas of matter or of God should be truer than that; yet they have substantial and unequivocal objects. If, for instance, in denying that persons exist, a philosopher like Buddha had meant that the idea we commonly form of persons does not rightly describe the substance at work in those places, he might have been more than justified; a supposed spiritual substance called the soul is not easily to be found there; but he could hardly have maintained his negation if he had meant that there is no substance of any sort for which the idea of persons is a conventional mask. In fact Buddha himself implicitly believed in Karma, a principle of inheritance and continuity which was the parent of all illusions and the substance of our imaginary selves. No doubt this conception of Karma, like the notion of a person, needs to be clarified; but it is a splendid instrument of moral synthesis, and describes the operations of substance in one important respect, though doubtless without understanding the mechanism which actually subtends human character and moral inheritance.

Knowledge, then, is not knowledge of appearance, but appearances are knowledge of substance when they are taken for signs of it. The stuff and texture of knowledge, its verbal and pictorial terms, are flexible and subject to progressive correction. Thus the notion of matter, of God, of a human person, may continually vary, and may end by shedding completely the specious character it had at first: as, for instance, this Buddhistic notion of what a person really is, namely, a moral heritage, is a complete denial of several grosser definitions of a human spirit; but these reformed ideas and new names are meant to be applicable to the same object formerly conceived otherwise; for this reason they may

be truer and better. In like manner the idea of matter or of God may be reformed; it may even be reformed so radically that a fresh word may be thought necessary to designate the new conception, and the old substance will receive a new name; but controversy is misguided if it turns on hypostatizing either idea, and asking which of them exists. The answer is, neither: what exists is the substance at work, and this substance is never an idea hypostatized. It is prior to all ideas and descriptions of it, the object that in their rivalry they are all endeavouring to report truly. In its local modes, or in its broad relations to some human interest, it bears without a murmur whatsoever names any one's tongue, in its pathetic spontaneity, may impose upon it; here it is called mother, there John, there bow-wow; in one broad aspect it is called matter, in another it is called God. When such names, in physics or in theology, are expanded into articulate systems, the question may arise whether they continue to be appropriate to the part or aspect of substance on which they were first bestowed: and this is a doubt for further study to solve, patiently directed upon the same object. A man may then honestly ask himself whether he believes in matter; meaning that he does not regard the conventional notion of matter as certainly applicable to the substance meant; or if he likes to startle the pious he may say he does not believe in God, because he may not regard the conventional notion of God, or perhaps any notion bred in the region of dramatic emotion, as honestly applicable to the substance actually operative in that sphere—say, in the sphere of momentous events and ultimate destiny. Evidently further study of momentous events, and further reflection on destiny, might decide this question for him, as further study of physics might decide the other; but

whether we think fit to call substance there matter, and substance here God, or invent other names, substance will remain what it is; our appellations and ideas will have no power to create it where it is not, or to dislodge it or modify it where it is. Illusions have their own specious reality and physiognomy, curious as folklore is curious; but it is substance as it exists that is momentous, since it determines events, including our illusions and the disappointments they entail. I should be sorry to think for one moment that any philosopher, much less any religious man, could cling to his beliefs merely because they were his, or he liked them, or had defended them before. Of course every earnest mind recoils from self-deception and from the thought that its dearest feelings might go up in smoke; of course it is singly devoted to discovering the facts, whatever they may be, and to assuming towards them a brave and becoming attitude.

My conclusion accordingly is this: Belief in substance, besides being inevitable in daily life (which I think is the right place for philosophy), is vindicated by the adequacy and harmony of the view it gives us of existence; and the notion that substance is unknowable is reduced to a misunderstanding—intelligible but unfortunate—due to a confusion of knowledge with intuition. If by knowledge we understood an intuition containing no element of faith, but simply inspecting the obvious, then indeed all substance would be unknowable; but this necessary ignorance would then extend to every subsisting fact assumed in science and in daily life: not only would matter and God disappear from the scene, but the whole past and future would be denied, together with all that flux of experience which social intercourse, psychology, and history presuppose. Nothing would

then be knowable save the feeling or image present at the moment to the mind; and even this would not be known for a fact or event in the world, but all that would be known in it, or through it, would be its own specious nature, the idea presented or the sensation felt. To limit knowledge to intuition of such obvious essences is to deny knowledge: it is to revoke the whole transitive intention or significance of ideas. The knowledge that mankind claims and rejoices in is of quite another sort; it consists in information about removed facts, intuitively undiscoverable. To a mortal creature, hounded by fate, and not merely engaged in seraphic contemplation, absent things are the things important to know; it is they that have created us, and can now feed or entice us; it is they that our moral nature hangs upon and looks to with respect.

I have sometimes wondered at the value ladies set upon jewels: as centres of light, jewels seem rather trivial and monotonous. And yet there is an unmistakable spell about these pebbles; they can be taken up and turned over; they can be kept; they are faithful possessions; the sparkle of them, shifting from moment to moment, is constant from age to age. They are substances. The same aspects of light and colour, if they were homeless in space, or could be spied only once and irrecoverably, like fireworks, would have a less comfortable charm. In jewels there is the security, the mystery, the inexhaustible fixity proper to substance. After all, perhaps I can understand the fascination they exercise over the ladies; it is the same that the eternal feminine exercises over us. Our contact with them is unmistakable, our contemplation of them gladly renewed, and pleasantly prolonged; yet in one sense they are unknowable; we cannot fathom the secret of their con-

stancy, of their hardness, of that perpetual but uncertain brilliancy by which they dazzle us and hide themselves. These qualities of the jewel and of the eternal feminine are also the qualities of substance and of the world. The existence of this world—unless we lapse for a moment into an untenable scepticism—is certain, or at least it is unquestioningly to be assumed. Experience may explore it adventurously, and science may describe it with precision ; but after you have wandered up and down in it for many years, and have gathered all you could of its ways by report, this same world, because it exists substantially and is not invented, remains a foreign thing and a marvel to the spirit: unknowable as a drop of water is unknowable, or unknowable like a person loved.

KNOWING AND ACTING

AN INAUGURAL LECTURE

DELIVERED BEFORE THE UNIVERSITY OF OXFORD

26 NOVEMBER 1910

BY

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MCMX

KNOWING AND ACTING

It is usually thought to be the first duty of the new holder of a University Chair to recall the memory of his predecessors, and perhaps to attempt some appreciation of their work. But in the present case this is unnecessary. The memory of my predecessors is yet fresh and green in the recollection of the University. I know of some still with us who were present at Dean Mansel's inaugural lecture ; I might myself—though to my loss I did not—have attended the lectures of Chandler, and their successor is, most happily, still present and active among us. To an Oxford audience of 1910 no words of mine are required to recall the wit of Mansel or the erudition of Chandler, still less the personality of my immediate predecessor. I am deeply sensible of the honour and the responsibility of succession to such distinguished thinkers and scholars. I ask leave to pass from this topic, and to auspicate my tenure of office by commemorating two among the illustrious and beloved dead who have adorned and enlightened this University, and to whom as teachers, colleagues, and friends, I, like so many others, owe an unrepayable debt. Not that their memory either stands the least in need of revival or reminder, but I would fain seize this opportunity to recall their names in gratitude and piety. Of each I will speak briefly and in words not my own, of my College Tutor, Richard Lewis Nettleship, in the words which his friend wrote for his epitaph in the College Chapel, 'He loved great things and thought

little of himself: desiring neither fame nor influence, he won the devotion of men and was a power in their lives: and, seeking no disciples, he taught to many the greatness of the world and of man's mind'; of my great Master, Edward Caird—I can use no words less or other than those which disciples in philosophy have loved to repeat whenever Death has severed personal intercourse with a beloved and revered teacher—*ἀνήρ, ὡς ἡμεῖς φαῖμεν ἄν, τῶν τότε ὢν ἐπειράθημεν ἄριστος καὶ ἄλλως φρονιμώτατος καὶ δικαιότατος*—the wisest and best man we have ever known.

The legislator, as the Greeks would have called him, who framed the brief regulations determining the duties of the Waynflete Professor of Moral and Metaphysical Philosophy, describes them in a way which rather sets a problem than furnishes guidance. The Professor, he says, 'shall lecture and give instruction on the principles and history of Mental Philosophy, and on its connexion with Ethics.' He distinguishes two great departments of philosophic thought—so recognizedly distinct as already to be assigned for separate treatment to two other Professors in the University—and he enjoins that they shall be afresh discussed in their connexion with one another, yet with respect for their distinction. It can scarcely be his meaning that his Professor should attempt the invidious task of harmonizing the possibly divergent accounts given of Logic by the Wykeham Professor and of Ethics by Whyte's Professor, of performing in public the higher synthesis of his colleagues' several contributions to philosophic truth, or—less arrogantly—of indicating or reinforcing their latent consonance. Such a task, had it been required or suggested, I could not have

undertaken. I am content to accept his words as an instruction to begin my tenure of office by reflecting upon the relations to one another of certain parts or branches of Philosophy, commonly distinguished, if not separated, from one another; to endeavour, after clearness and distinctness of view about the precise nature of their difference and connexion, to bear all this perpetually in mind, and, if possible, to assist others to the rejection of whatever is fanciful or arbitrary and the firmer grasp of whatever is solid and reasonable. In this task not much aid is vouchsafed by the legislator himself who, like the lord of the oracle at Delphi, *οὔτε λέγει οὔτε κρύπτει ἀλλὰ σημαίνει*. In fact, as I have said, he has left to his Professor rather a problem to consider than a clear solution to his natural questioning. It is to this problem I invite your attention to-day. It is one which frequently recurs in the history of Philosophy, and it still remains of interest and importance.

To divide or partition anything presupposes that it is a whole, a whole of parts. Philosophy is above all things a whole, a whole in the most pregnant sense of the word—not an aggregate or a collection, but a well-ordered system. This it is at least in idea or as an ideal. Though historically it has been constituted by the gathering together of a number of separate and separately originated problems, discussions, solutions, it is not, and cannot regard itself as a mere sum or aggregate of these. It exists precisely to remove their initial separateness, and, so far as it is actual, is the result of their integration. It looks behind and beyond their severance, and ceaselessly labours, not to abolish or obliterate their distinctions, but to link them together, to organize them, or rather to discover and exhibit their organic connexion within its well-ordered

structure. Its aim is to articulate the whole of thought or knowledge, and at the same time to reduce to order the rich variety of the whole Real which is its only adequate and commensurate object, nay more, to discover, apprehend, and make patent, first to itself and then to the common mind of humanity, the harmonious structure of that supreme, whole, and single Reality which embraces both itself and its object: to do this at least in its main outlines and dominating principles.

This unifying activity is the primary and most obvious characteristic of Philosophy. The desire to find and realize unity is the primordial source of its being; the confident belief in its reality is the support of its continuance in existence. Of course it is not content merely to reiterate that all is one: it endeavours to show how things are one, what sort of one they are. Still, it is for unity that it seeks; unity is its characteristic note. Now, at first sight, the nature of that which it takes for its province seems such as precisely to threaten defeat to its desire and refutation to its belief. Reality—actual Reality—as it encounters our gaze without and within us, presents an endlessly variegated spectacle; it is inexhaustibly fertile in the production and manifestation of differences, and appears to exist in and by ceaseless self-diremption and self-differentiation. Nature and Mind alike run riot into endless detail. Differences perpetually and everywhere break out. The mind seems to have no office but to note and register the differences thus thrust upon its observation, and in the endeavour to keep pace with this multiplication in its object is driven to depart from its own primitive simplicity, specializing itself into faculties, sub-faculties, and so on without limit. The hope of discovering or rediscovering

unity without or within is a dream of an impossible return to a past simplicity which perhaps never was present. Whether in this Wirr-warr of beings, happenings, relations, &c., there is any unity, any plan or system, that, so we are told, we cannot ever know—*ignoramus et ignorabimus*. The outlook for Philosophy seems desperate enough.

Such doubts, it will perhaps be replied, are extravagant and metaphysical: can they not be met with a *solvitur ambulando*? Are not many, perhaps most, of the differences which meet us so slight as to be negligible? And between differents do we not also find threads of connexion? Can we not in fact, and with a correctness guaranteed by success in attaining our aims, group and range together elements in our experience? Undoubtedly we can and do proceed by such abstraction and simplification of the given, and we find our account in it. The facts supplied to us are patient of such treatment, and so treated answer to some at least of our demands upon them, though at times, and in serious, perhaps the most serious, cases, they recalcitrate and prove unpredictably and disconcertingly treacherous. It is no mere paradox that nothing happens but the unexpected. We must in all honesty admit that we have no right to confidence in any event, that our abstractions and neglects are arbitrary, our groupings and generalizations provisional, and our successes and failures alike no better than matters of inscrutable luck.

Granted that this is true of the rude results of practical common sense, does not the existence of the sciences give us a better-grounded hope? No; the sciences but carry further with greater conscientiousness and more discretion in statement the precarious methods of procedure begun in practical common sense. They profit in reputation by reckoning

to their credit the coming off of their hazarded predictions, which they can show no title to regard as due to anything else than the same luck. The track of the history of the sciences is strewn with the wreckage of outworn systematizations, falsified predictions, and discarded *anticipationes naturae*. It is idle to urge that they *have* been discarded, and by the sciences themselves. The sciences must be judged by their whole past performance and their present profession. What they profess is to know in advance, to inform with respect to the future. In this they profess to exclude luck, and yet they must avow themselves engaged in a gamble with unknown antagonists who are not bound to any as yet securely discovered rules of the game. The course of Nature is a series of surprises: its pretended uniformity is a libel.

Whatever comfort the lover of unity may derive from considering the practical successes of common sense or the sciences, such considerations are not sufficient to justify the high philosophic demand for assured unity and system in and throughout all differences. And yet we need not despair: we must beware of first impressions. For the philosopher—the lover of, and believer in, unity—is not surprised by differences; he expects them: he is quite ready to acknowledge them, and has no desire to ignore or belittle them. What he believes in is not mere or blank unity, or unity alongside of differences, or even unity permitting them, but systematic or organic unity which *requires* differences within its ordered and harmonious structure. Such is the unity he expects, and indeed knows, Reality to be. It is therefore no shock to him to find it fertile in the manifestation of differences, or even to find the appearance of multiplicity at first masking its inner unity and orderliness. Only he will

not consent to have them forced upon him: he knows that they cannot be so forced, or impose themselves at all without his consent and approval. They must legitimate their claim to be received. In their first appearance he even welcomes them as stimulus and material for his special activity. The spectacle presented by Reality to our first, i.e. our most unthinking view, is so far from discouraging to him that he recognizes it as the necessary occasion of his peculiar work.

All this is, I am well aware, rather a confession of faith than a reasoned argument. The proof of it cannot be given now, but can be produced only in and by its development.

To unify—if that be possible—what we call 'Nature' is not commonly acknowledged to be the business of the philosopher, nor is he generally thought to possess any competence for that task. His proper—or at least his primary—business is thought to be that of setting his own house in order. He is bidden to restrict his ordering function to the inner world—the world of Mind or Spirit. *Tecum habita ut noris quam sit tibi curta supellex.* If he accepts this limitation, there is evident a rather gleeful insistence on the difficulties of his accepted task. Here, too, is the same spectacle of endless detail and difference. Even after Psychology, as the science of the inner world, continuing the work begun by practical common sense, has reduced to classes and brought under laws the immense variety of mental phenomena, the result of its arbitrary abstractions and artificial simplifications—themselves without producible justification—is still so complex and so disintegrated as to present little hope to the would-be assertor or discoverer of a single well-ordered system or harmonious and self-explanatory unity. It may here be remarked that the philosopher does not expect or assert

such unity in what we call the individual mind, or at best only a forecast and analogue of such unity. Yet *qua* philosopher he is confident that in all the variety of mental life there is a unity, giving being and intelligibility to all the differences that genuinely exist and therefore must be acknowledged. But the differents must *be* different—really and genuinely different, and not merely *seem* so, nor is there any obligation to accept in regard to them the first deliverances of this or that casual observer.

But how, it may be asked, are we to get at this unity? How especially are we to be sure that what we arrive at is not simply the empirical self of you or me, already discredited as a mere pretender to be the unity of which we are in search? The answer is, by Reflexion. This is a mere word, but I believe it to stand for a genuine idea. Here I can only say what it is not: it is not observation or 'introspection' or any operation known to or practised by the sciences. It is the special method, or rather act, of Philosophy. In performing it the mind ceases to be this or that mind, it becomes and finds itself as Mind universal: it discovers not *my* mind, or mind 'in general', not a mutilated individual, nor 'an arbitrary complex of mutilated individuals', but Mind Individual and Universal, single and integrate, that of which your mind and mine are isolated and distracted fragments, yet at the same time parts and tributaries, and as such participants in its nature and similar to it in structure.

That Reality, as well within us as without, should present differences is to the philosopher matter neither for surprise nor for regret. He is not dismayed by the extent and variety of these differences, or by the fact that the very differences themselves differ *inter se*, in amount, degree, kind, &c. There are differents and differences, and not

only differents, but differences differ from one another. This he acknowledges, and indeed insists upon, and nowhere more than 'in his own house'. But he must equally, or more, insist upon the difference between real and unreal, genuine and spurious differences. The doctrine of degrees of reality here or elsewhere is not a popular one—precisely because it is a philosophical one. And indeed even within philosophy it is itself inadequate. At any rate here we are on the look out for differences in reality which are more than of degree, which sunder their differents by a gap which no interpolation of graded *media* can fill, which justify the contrast of the severed terms as respectively real and unreal, and finally expose the hollowness of a fancied unity of nature unevenly divided between the contrasted terms.

Philosophy can admit no differences which cannot approve themselves real and genuine, whereas in practical common sense, and even in the sciences, only spurious differences are admitted or both are confounded together. The fact of difference thus, with a proviso, to the full admitted, a few words may be said as to the nature and implications of this fact, care being taken to supply no more than can be easily assimilated even by common sense and science. Perhaps in the discussion of them some grounds will emerge, some reasons insinuate themselves, for the philosophic faith that only such differences are real and genuine which can vindicate for themselves an intelligible place within an ordered and harmonious unity, or at least that those which fail to do so lie under grave suspicion of unreality and imposture.

Paradoxical as it may sound, it is universally true that every difference implies and presupposes as its basis a unity within which lie the terms it holds apart. This holds even of what is called mere or bare difference,

for no two terms can differ unless they both *are*, i. e. fall within the same universe. Further, each difference implies a basis of its own, and each sort of difference a special sort of basis. So intimate is the connexion between the difference of two terms and their unity, that it may be said that they differ precisely in respect of what they are or have in common, and vice versa. Thus red and blue differ as colours, i.e. in respect of, and in condition of, their being both colours, and the notes of a scale or a melody differ just because they are related to and within the self-same whole. This coexistence within the same area enters into the nature of each: to differ is only possible upon a basis of agreement; to be different, two terms must have not only something in common, but precisely that in respect of which they differ. Nor is it possible to assert—except verbally—their difference without recognizing their 'identity'.

The deeper their difference (if we may speak of depth, in distinction from width, of difference), i. e. the more profoundly the difference enters into their several natures, the more intimate is the bond of union between them and the more penetratingly is the nature of each coloured by the fact of their joint membership of the whole, and vice versa. How far-reaching is the difference between two lovers of one mistress! And it is so because they are so thoroughly at one. Philosophers have made themselves a byword by the dissidence of their dissent, and yet where can we find as among them so extensive a mutual understanding? Differences can only exist—or at any rate can only live and thrive—on a basis of identity, as identity can only live and thrive on differences. *ἐκ τῶν διαφερόντων καλλίστη ἁρμονία.* What alone is real is the system which permits and requires both. Therefore it is that

the philosopher is the friend and welcomer of differences, the insister on their value and seriousness. But as before, he will not accept as real and genuine all differences, nor all at the same value. Some he will roundly denounce as spurious. To deserve and win his recognition a difference must vindicate its claim, must legitimate itself by disclosing its basis and its implication with the unity which together with it forms its terms into a system. Trivial, insignificant arbitrary differences imply and are implied by trivial, insignificant arbitrary unifications. Where system is not exhibited, difference and unity are alike unsound—neither can be called genuine or real. And in particular the differences drawn and used by practical common sense, or even by the sciences, deserve just as much, and just as little, respect as the hurriedly formed aggregations and collocations, proudly termed 'classes' and 'laws', with which they are inseparably connected.

All this applies to the crude though sometimes elaborate attempts made to enumerate and classify kinds of difference, or to arrange them in a scale or hierarchy. Not that the aim and design of these attempts is erroneous: it is the execution that is at fault. Nothing could be more foolish in the philosopher than a prejudice against recognizing differences of differences, but these too he cannot take as they are offered to him, or at the current value which they bear in ordinary life or in scientific treatises. That they 'work' there is indeed significant to him and sets him a problem, but it does not guarantee the value assumed for or ascribed to them. He must assay them by his own tests, and so tried some of them prove base metal enough, mere tokens and counters in the hazardous operations of the common mart where the ordinary

practical man and his better-informed scientific neighbour ply their useful business. There are floating in the world of thought far too much flash currency, far too many worthless securities, driving by a new 'Gresham's law' sound money from the market.

From time to time an uneasy sense of insecurity visits the usually absorbed and busy traffickers: they are threatened with a necessity to 'realize', and they turn reproachfully to the despised philosopher with requests to restore their shaken confidence and to correct their currency—their *tesserae notionum*. They find their working coinage so defaced or degraded that they fear that for all their well-filled coffers they may on examination prove bankrupt, their fancied wealth turned in a moment, like the fairies' gifts, to withered leaves. They dread lest their working distinctions and unifications prove to be without fixity and security of basis.

De nobis fabula narratur. We are all in the same case. Even the philosopher cannot convert all his possessions into pure gold. Even if he could he might, like Mark Twain's hero with the million pound banknote in his pocket, starve in the midst of plenty. He must, like others, for the larger part of his thought and practice, rely on common sense and such aid as the sciences afford. Philosophy is not a substitute for either. After all, it pretends to do no more than to explicate and articulate the main structural principles of experience.

This is all it professes and hopes to do even in regard to 'its own house'—the world of Mind or Spirit. This is its first business: with this business we are here to attempt a beginning. The domestic distinction we are here to consider and criticize is that between Metaphysical or Moral Philosophy. The common basis is patent, for

whatever the difference be between them, each is and is named Philosophy. The distinction is not very well expressed, for there is clearly no proper antithesis between 'moral' and 'metaphysical'—'metaphysical' being an epithet of Philosophy in the largest sense of the word, in which it includes moral philosophy and whatever in philosophy is contrasted with it. 'Mental Philosophy' is worse. By the one and the other term I shall take leave to consider meant what at least at Oxford is usually called Logic. What are meant to be contrasted are two parts or departments of Philosophy. The distinction between them presupposes a more fundamental one, which may be most simply expressed as that between doing and knowing, the act or deed and the thought; or, as simply but more concretely, between the agent or doer and the thinker or knower, the man of action and the man of thought.

Here again the basis of the difference—the field or area of it—is clear: it is Life, the life of the spirit or mind. Both differents fall within Life, and each is a kind of living.

Concerning this difference—the difference between doing and knowing—we are now to ask whether it is genuine and real, whether they are so related to one another and to the unity within which they fall that a system is constituted, a system which, in virtue of its own nature and by an inherent necessity, articulates itself thus and not otherwise, and constrains us to think it thus and no otherwise divided, so that in thinking it thus we know it. On no other condition can we admit the offered difference to be genuine and real. My contention is that it is so, and that all other divisions are spurious, or at best secondary subdivisions of one or other. Only so

is it possible to grasp the several nature of the opposed terms and the manner of their interrelation.

Now at first sight nothing seems plainer than the existence and mode of this difference, and yet from the beginning doubts suggest themselves. The two terms are not as ordinarily conceived, sharply defined, or clearly contrasted. Action is not simply ignorance, knowing is not simply inaction or passivity ; the terms are not mere opposites. And there appear to be other contrasting terms to each than the other, e.g. making and (in another way) feeling. But making is either a blurred conception which includes certain forms of doing and certain forms of knowing (for we 'make' advances in knowledge as well as chairs and tables), or a subdivision of doing, and feeling is a term with a meaning as vague and shifting as the fact of feeling itself. For reasons which I cannot here develop, I disallow the claim of feeling to stand on a level with doing and knowing : the real or supposed existence of a department of Philosophy called Aesthetics need not cause us to hesitate.

Doing and knowing present themselves as so related within a closed area—which is human nature or life—that whatever there is not the one is the other, and vice versa. Each is a mode of human—or more generally spiritual—being or living. That is their identity, but it is their difference which first strikes us and puts their identity out of remembrance. It will be observed that both terms must be taken very widely—doing as including wishing, willing, intending, &c., and knowing as including sensation, perception, judgment, reasoning, insight, &c. So taken they appear to differ as much at least as Odd and Even in Number, or Straight and Curved in Line. Our aim is, if possible, to *understand* their difference.

Let us—if we can—forget that they are never found except coupled within the unity of a single spirit or spiritual experience : let us look merely at their difference as it is 'thrust' upon us in direct experience and ingenuous observation. What contrast can be greater or more unmistakable than that between the statesman or the man of business, and the philosopher or the poet ! Between the genius of Napoleon and that of Kant ! Between the conduct of a campaign and the discovery of a theory of heat ! Between the reform of the Poor Law and the formation of the Darwinian theory ! From some points of view human beings seem sundered into two disparate types, each of which views the other as its rival and antagonist, regards it with contempt, dislike, mistrust, fear or envy, and all the feelings that divide man from man. The great men of action and the great men of thought appear alienated from one another, the links of mutual understanding, sympathy, and co-operation severed between them, each living in a world of his own inaccessible and impenetrable to the other. And we ourselves—the little ones—find ourselves similarly, if more feebly, divided from one another, and each looking within beholds himself as the mere battlefield of two opposites, oscillating between two incompatible forms of living, alternately pursuing two irreconcilable aims, the improvement of ourselves or our estate and the satisfaction of our curiosity. What folly to speak of our common humanity, of the unity of the self ! They are but the name of unrealizable dreams, of plain impossibilities.

Science confirms the impression, and endorses the deliverance of common sense. Psychology in particular analyses, divides, dissects our supposed unity into disparate faculties : doubtful as to much in its analysis,

it is sure of the difference between our 'active' and our 'passive' powers, our doing and our knowing. This is no special doctrine of the so-called 'Faculty-Psychology', but the common property of all Psychology. It is acknowledged indeed that somehow these differents *are* one, but of the *how* no account is vouchsafed. The dogmas of the unity and the diversity of the self are simply left standing side by side in the psychological *Quicunque vult*. They are to be taken as brute facts thrust upon an intelligence which has no office but to take note of them. Man is man, both active and cognitive, human nature is both one and two (or more), as if 'both-and' were words of any meaning or the statement that employs them of any genuine significance. Psychology but continues the work of common sense, and often does little more than add a pseudo-scientific authority to its naïve deliverances and prejudices. Here it is content for the most part to *magnify* the difference, and thereby to render the philosophic problem no clearer but only more urgent.

Neither common sense nor Psychology takes its distinctions with sufficient seriousness. Can either produce a clear, precise, steady definition of doing or of knowing, 'conceptions' with which they constantly and unreflectingly 'work'? The meanings of the one and the other perpetually run together, cross and change places, admit into their circle members from the other, and are constrained to interpolate between their private domains endlessly continuous links of hybrid nature. The types of the man of action and the man of thought flicker and melt into one another. The statesman, to be a statesman, must think and know, the philosopher in his most abstract speculations is surely not doing nothing at all (or why

such dread of his 'destructiveness'?). Can the Poor Law be reformed unknowingly or a theory of heat be devised inactively? Has any psychologist observed an instance of pure knowing or of mere action? Can he honestly claim that his classifications and divisions indubitably carve Reality—psychic reality—'at the joints'?

But to abandon our 'working' distinctions, is that not to return to chaos? Not so: that is not the only alternative. What is clear is that the mind cannot rest in the mere assertion, side by side, of unity and duality or multiplicity. Nor is it fair to charge even common sense, still less Psychology, with complete silence as to the positive relation of knowing and doing to and within the obscure and depreciated unity of the mind or spirit. Suggestions are offered—hints thrown out—for an advance from an untenable position, and these contributions to philosophic insight deserve respectful consideration. Perhaps in critically reviewing them we shall find ourselves collecting the fragments of the integral truth.

The first suggestion is that the difference is not one of mere opposition even within its own sphere: it is not one of kind or nature: positively it is one of degree or amount, yet so wide, so large in amount, as to present a well-grounded *appearance* of difference of kind. And so, while the *real* distinction between acting and knowing is one of degree or amount of something common (or of different proportions of the same 'ingredients'), we are for practical, and indeed for scientific purposes, justified in regarding each as a species of a single genus, e.g. human, living, spiritual being, 'psychic fact or occurrence,' &c. This suggestion in effect and intention denies the genuineness of difference of kind between them, and asserts as the truth underlying it difference of degree. But what is that

single something of which the one is just more and the other less? Are we more alive, or more spiritual, when we know or when we act? Is there any sense in such comparisons? In asking such questions we proceed on a false assumption, and we entangle ourselves further in misconception. We generate misleading expectations: we try to find in each of our two powers what not it, but the other, can furnish; we look for truth in action and for good—practical good—in knowing, and in both cases in vain, for the good of knowing *is* Truth, and the truth of acting *is* Goodness. The source of our error here is the 'scientific' prejudice that either differences of kind exist genuinely nowhere, or that if they do they are unintelligible. We may be grateful for the implied doctrine that no difference is genuine except one which is intelligible. But the prejudice *is* a prejudice, and to rest in it is to evade our issue. Everywhere science tries to *substitute* the one sort of difference for the other, and forgets that, while they may go together, the one is not the other, and that concurrence is not identity. The qualitative difference between red and blue *is* not the quantitative difference between two wave lengths, and the difference between doing and knowing *is* not one of degree of truthfulness or practical goodness or of spirituality, &c.—at least, not merely and not genuinely that.

Another suggestion is one more often implied than expressed, used than declared. It is that the relation is one of analogy. It may seem odd to speak of the relation between two analogues as a special sort of *difference*, yet surely if two things are truly described as analogous they must be different, and different in a special way. Kant even defines Analogy as 'an exact similarity of two relations between quite dissimilar things'. Analogy presupposes

a profound difference between the analogues: the exactest similarity between A and B requires that A and B should be different individuals. Likeness is often presented to us as the *truth* underlying what we hastily take to be identity of kind, and the correlative unlikeness which together with it constitutes the relation of analogy as the truth underlying difference of kind.

Is the relation between acting and knowing one of analogy? Certainly the points of resemblance which exist between the man of action and the man of thought, the doer and the thinker, the deed and the thought, are numerous and striking. We come not easily to an end of them. Nor do they lie merely on the surface: they constitute a profound homology of structure. On this rests the possibility of their conjunction and co-operation. That is what, when we recognize it, makes us call them both psychic or spiritual, or even rational. Yet there remains their difference, and just that difference which is required by their character as analogues of one another. This difference in the general case of analogy we express by calling it a difference of the sphere of application as opposed to the sameness of the principle, a difference of the medium as opposed to the identity of the function, or most simply as a difference of the matter or materials as opposed to the homology of the plan, structure, or form. Can we apply this to the case before us? What are the materials, the substance, out of which acting and knowing are severally but similarly built up? The only answer can be, out of acts and thoughts (knowledges) of a more elementary kind: descend in analysis below these, and again you find the same. The difference between them is endless or ultimate. Even in their most inchoate forms the one preserves its difference from the other.

Nevertheless our last word is not simply that they *are* different : we know not only *that* they come together, but *how* they do so. They are ' as far apart as the poles ', and yet again the poles are held fast together within the sphere of human nature or experience, and by their diametrical opposition measure its dimension. Or, as we may put it, human nature or life and every item of it polarizes itself, like the divided fragments of a magnet, into just these opposites : every moment of experience unites them both, and requires within it their diametrical contrast.

The unity, or rather the system, of spiritual being is no fortuitous aggregate of parts anyhow different : by its very nature it permits and requires precisely this polar opposition of knowing and acting, and each fragment of its life and being presents the self-same structure. If we think of this unity as maintaining itself in and through succession, then the cyclical alternation of knowing and acting is the fundamental law of its rhythm—the *Leitmotiv* of the music of the Universe, or at least, of our life. Each and every action presupposes knowledge of a situation : each different action knowledge of a different situation : in and from ignorance no action can arise. And, on the other hand, knowing presupposes acting : in order to know there must first be something to know, and for this to be it must have been enacted. If in the universe the well-springs of action ran dry there would be no ' object ' of knowledge, and all knowing—which is essentially *after-thought*—would vanish with the surcease of its object.

This thesis I maintain to be true, true precisely, universally, and without reservation. But if true, is it not a truism, empty, tautologous, uninstructive ? I venture to think it is not so.

For, in the first place, it makes an end of the claims of

any third pretender to stand within the life or spirit on an equal footing with those two : it condemns as unphilosophical, i.e. false, all trichotomies of spiritual unity, and all subdivisions of it which do not fall within this primordial division.

In the second place, it excludes as untrue all supposed hybrids or confusions of those two : such are mere illusions and unrealities.

In the third place, it forbids the reduction of either to the other, or of the whole which is the unity of both, to one only. It is equally opposed to ' Intellectualism ' and to whatever is its diametrical opponent ('Voluntarism').

Lastly, it sets aside the whole controversy concerning the relative value of the Intellect and the Will. It pronounces for the autonomy of the one and the other.

All the controversies which we thus set aside arise only when we lose hold upon our vision of this their unity or duality which is life and being, and especially our life and being. From the clear upper ether of Philosophy we return to the misty twilight of the cave, where all contours lose their sharpness of outline and all shapes dislimn and melt into one another, to the region of hasty generalizations, careless abstractions, working compromises. Here we may indeed put such questions as that concerning the primacy of the Will over the Intellect or of the Intellect over the Will, the superiority of Goodness to Truth or of Truth to Goodness, or ask whether Action be for the sake of Knowledge, or Knowledge for the sake of Action ; but no conclusive or satisfactory answer can be found. Merely to word our vision in language appropriate to this region is to do it injustice and expose it to misrepresentation, yet at such risk the answer to the last question may be thus formulated : Knowledge is for

the sake of Action, and Action no less for the sake of Knowledge.

Each half of this statement, separately taken, is false: only both together are true. From time to time a falsifying emphasis is thrown on the one, and then in the interests of the truth it becomes necessary to reassert the other. In our time it seems as if it was the latter half that called for restatement and defence. Time was when the opposite was the case, when it was not doubted that Contemplation —the Beatific *Vision*—was the end of all action, the goal and reward of all our striving; the more striking and potent forms of mere action were contemned and depreciated, their endlessness and futility the favourite theme of Philosophy. ('Doing is a deadly thing, Doing ends in death'.) Now it is otherwise: our efforts after knowledge are decried as the vain attempts to satisfy an idle and insatiable curiosity, our desires for it derided by a strenuous agnosticism, hungry after the fruits of action, incurious of light. The lovers of knowledge are put on the defensive. It may sadly be acknowledged that some of its foes are of its own household; it is wounded in the house of its friends. Even at a University—even at this University—it has to be vindicated against domestic antagonists.

Reminding you that the truth lies only in the combination of the two halves—in the statement that Action is just as much (or as little) for the sake of Knowledge as Knowledge is for the sake of Action, I make here some plea for the less popular half. Let us recall that in the systole and diastole of being action necessarily produces new matter for knowledge, the world of the known or knowable is thus extended, and that no otherwise can this occur. Before knowledge steps upon the scene, something must

have been enacted: history must be made before it is noted, recorded, and studied: enlightened by the historian's labours the statesman sets to work and makes fresh history for the historian once more to note, record, and study. Knowledge thus supervenes upon action: all knowledge is of the past, the fact, the enacted. Action is the *sine qua non* of knowledge.

But does action produce knowledge as its chief result or as a bye-product? If my answer is the latter, I may be thought to have abandoned my client's case, but really it is not so. For what I contend is that action is for the sake of knowledge in the same sense in which knowledge is for the sake of acting. Now knowing (and, further back, thinking) is primarily for the sake of Knowledge or Truth and only secondarily and incidentally for the sake of Goodness. In both cases we are to ignore the true doctrine that each is primarily for its own sake: in both cases we are to have no regard except to subordinate ends. Still less are we to admit that the true end of either lies in the undivided unity of Life within which they co-operate. The vocabulary of 'means' and 'ends' will not suffer us to raise the only proper question or give the only true answer. Our question is: is it true or not that in the same sense as all thinking and knowing is aimed at, and actually subserves more effective action, so all willing and acting is aimed at, and subserves more successful knowing? My answer is, that it *is* true.

For, if not, what *is* acting aimed at, what is it the means to? To reply 'Action itself' is merely to emphasize its autonomy and we must assert the same of knowledge: to reply 'Life' is again to say of it what can equally be said of knowledge, it is to deny it any *special* end or aim. The only alternative to Knowledge is Pleasure—an

answer whose falsity I need not stay to expose. It seems as if judgment must pass for Knowledge through non-appearance of a possible rival. But the case for it may be put more positively. Why do we act or will? Not in order to act or to live: such answers, however true, are at our present level of thought meaningless. Is it so great a paradox to reply: we act always in order to see what will come of it, to see what the result will be, to see how things and ourselves will comport themselves, how they will respond to our call upon them and show us what they and we are? At least the experimenting man of science will not lightly reject our account of his motives, and we shall have deprived the complacent practical man of his most useful ally. But even the practical man may be challenged to say whether he expects (excluding pleasure) any other fruit and reward of his action than knowledge of himself, others and the world. Does he desire aught else than to see the work of his hands, to behold his business flourish or his enemy prostrate in the dust? But is this 'seeing' knowledge? Most assuredly it is, and it is the end of the doing, the only element in the total result which is not the doing itself, the only thing there to which the doing can be called a means.

A full vindication of this view is not here attempted. Here what is suggested is the principle in the light of whose truth the whole controversy 'pales its ineffectual fires'. The principle is that our nature is the free alliance of two sovereign powers, and our life the history of their co-operation without derogation of their several autonomy. Each sovereign power has its ministers and subordinates: the Will realizes itself through volitions, passions, desires, appetites, &c., the Intellect realizes itself through the

forms and functions of thinking, reasonings, judgments, definitions, descriptions, observations, &c. In Life there are no ends which are not also beginnings, no aims which are not also *points de mire*, in a word action never attains but it presents matter for knowledge; knowledge takes cognizance of its achievement and prescribes to it a further effort. Hence in stating their relation we must not use of either in relation to the other the vocabulary of 'means' and 'end': that language is appropriate only when by 'end' we mean a bye-end, and by 'means' something merely useful. With such restriction it is equally true to say that acting subserves thinking and that thinking subserves acting: each supplies to the other the occasion of that other's free exercise and independent development —its stimulus but not its life.

Freeing ourselves from the distorting influence of the terms 'means' and 'ends' we may state their relation thus: action is for the sake of action and knowledge for the sake of knowledge, but each incidentally, or concomitantly, is the condition of the other. Action cannot be except where knowledge precedes, and knowledge can take cognizance only of what has been enacted, i.e. of the results of action informed by knowledge. This doctrine is a paradox to common sense and to science, but not to philosophy. For in philosophy we learn that that only is knowable which is real and that that only can be called real which is the result of a *spiritual* activity—which has been realized in the light of knowledge. All genuine knowledge is historical—is knowledge of history, and history is as a whole and in every part of it the achievement of will—not of this or that individual will of this or that individual knower, but in and through their wills of that universal Will which endlessly fulfils its good

pleasure, as in their knowing the universal Mind which is allied with it endlessly reviews its achievements, uniting its vision and its volition in the whole and single Life which is Reality. The life of the individual—be it man or brute—is a portion or fragment of this life mutilated and marred by its isolation and contraction within a narrow circle. Yet even there it repeats the rhythm and structure of the whole in whose life is its life, momentarily, and transiently, with many a failure and many a fitful compromise synthesizing the two powers which make up its being—its action and its knowledge, and so actualizing itself as a member of the actual universe. So conceiving the universe we understand the relation to one another within the narrower universe of human life, of action and knowledge as each conditioning the other. Yet there the relation must remain partly unintelligible to us because in fact there they never come to unity with one another, but perpetually fall apart in unnatural and disabling severance, the one degrading into empty aspirations, vain desires, tumultuous passions, futile strivings, and the other into idle and barren speculations or self-deluding anticipations of a future which can never be known until by action it has been made present. Only in the elect of mankind and in them rarely do we see—or seem to see—the reconciliation and co-operation of the powers duly actualized. For most men at all times—and for all at most times—the best that can be hoped for is a reasonable compromise. Of the very greatest at their supreme moments can it alone be said, ' they willed what they did, and they did what they willed,' i.e. they acted on knowledge of the situation and saw what by their action they had accomplished.

If this then be the true account of the nature of man

and the relation within it of his cognitive and active powers, it follows that the discussion of the one must be clearly severed for a discussion of the other, and yet that there is room and need for a subsequent discussion of their interconnexion. But here and now I may be permitted to make an application of the doctrine at once more general and more particular and practical.

Here at the University, we who are teachers profess ourselves specially characterized by a determinate idiosyncrasy or temperament which prescribes our station and duty in the State. We are born with a special interest in truth or knowledge, with a peculiar love for it: that is what unites us here while it differentiates us from other servants of the State with different endowments and different vocations, which makes a special sympathy, mutual understanding and co-operation possible and actual among us. Not meticulously anxious to vindicate for the truth we discover and endeavour to communicate to our younger countrymen a narrow 'practical' value; we still do not seek or communicate it solely 'for its own sake'; we recognize that its value belongs to it in its union with action, as on the other hand action has no value save in union with it. Nor are we intolerant of those whose immediate business is neither to advance nor to propagate knowledge; we know that without their aid our occupation would be idle, our whole life empty and fruitless. It is our business to keep the brain of the State awake.

But we have here also a narrower or more special function. Our work is not merely to advance knowledge, but to advance it beyond ourselves—to inspire others with the love of truth and to enlist others in the common task, and to do this under limiting conditions prescribed by Nature, the circumstances of our time and place, and the wills of others

than ourselves. We have to remember that our pupils here are twentieth-century Englishmen, mostly belonging to a particular class in the community, almost all with a special and somewhat peculiar previous education, at a period of life with distinct and well-marked characteristics, just emerged from a stage in which they have been rightly engrossed in practice and what is called the formation of character, but one also in which the need of larger knowledge has not made itself poignantly felt and their intelligence not been spurred to any very serious effort. They easily believe, and are indeed sometimes encouraged to believe, that for life not much more knowledge, except of a technical character, is required. Of what is offered to them here, they cannot at first, if even in the end, see the use. Their love of truth, their belief in its vital value, their desire for it, are variable, fugitive, uncertain, and only too many sophistic voices din in their ears lessons which give a good conscience to their natural scepticism and supply apologies for mental inertia.

On the other hand, we find in them often a quick and ardent, if as yet undirected and indiscriminate curiosity which is as it were the first form of the love of truth, and a generous trust in their teachers which is an incipient faith in the value of that which they have to teach. The first is too often chilled, the latter too often disillusioned, both by our fault. The root of our fault lies not so much in lack of sympathy and slackness of will as in ignorance. We do not know, because we do not sufficiently study, the changes in the situation created by our abilities and endowments on the one hand, and on the other by the capacities, needs and desires of our pupils, and of our fellow citizens generally. At no time more than now has the need for reconsideration of this been so urgent, because

it has long been neglected, and there are signs that if we do not awake to it our complacent content will be rudely broken. But we are awakening to it, are indeed awake to it.

Let us temperately and without arrogance or self-applause remind ourselves and others of this, that for some of our fellow countrymen and at a certain stage of their lives the encouragement and development of the love of truth is the *unum necessarium*. Nothing else—no other passion however ardent—can take its place, no love of country, no devotion to cause or person. 'For he that loves it not, will not take much pains to get it, nor be much concerned when he misses it.' Knowledge is a primary necessity of all right acting and successful living. There cannot be too much of it, and there should be no limits to its pursuit and distribution. And of this treasure we here at the Universities are, by vocation and profession, the principal custodians. We strive to add to it, we keep it and impart it. *Vitai lampada tradimus*. With this function we may well be content, and acknowledging ourselves thinkers neither magnify nor extenuate the complementary functions of our more active fellows. They and we are members one of another, and within human life there is ample room for diversity of gifts and diversity of office. It is theirs to render our thinking and teaching efficacious in practice, ours to supply the knowledge without which their activity might be no more than a busy mischievousness. Neither can claim superiority over the other, and for our part we have the well grounded assurance that what we endeavour to supply is indispensably necessary to the welfare of all. 'Where there is no *vision*, the people perisheth.'

Immediate Experience and Mediation

An Inaugural Lecture
delivered before the University of Oxford
20 *November* 1919

BY

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M CM XIX

IMMEDIATE EXPERIENCE and MEDIATION

If, in accordance with custom, I begin this Inaugural Lecture by commemorating my predecessor, I am only too well aware that no words of mine can be adequate to the subject. By all who came within the wide and powerful sweep of his influence, the late Wykeham Professor of Logic, John Cook Wilson, was recognized as one of the great forces in the spiritual life of Oxford; and though he has bequeathed to us the enduring memory of a noble example, we cannot but feel his death as an irreparable loss.

It is natural to think of him primarily as the incomparable teacher who, throughout his long career, first as tutor and then as professor, devoted himself, with unflinching energy and with remarkable success, to one of the most difficult tasks in the world—the task of communicating to others his own high sense of the seriousness of philosophy, of fostering in them his own single-hearted devotion to the truth. That this was the aim and spirit of his teaching, all who knew him will agree. 'His outstanding characteristic', writes one of his pupils,[1] 'was his power of going to the root of a matter';

[1] Mr. H. A. Prichard, in *Mind*, N.S., No. 111, July, 1919.

and again, 'There was infection in his conviction that the truth was a matter of high importance, that slovenly and confused thinking was a crime, and that words and phrases were a snare to great and small alike'.

Nor was his influence as a teacher by any means confined to his regular pupils. Many of his younger colleagues, teachers and writers on philosophical subjects, both here and at other Universities, owe him an incalculable debt of gratitude. For his knowledge—the knowledge of a master of the subject—was always at the service of any fellow-worker who consulted him. If I may quote my own experience, I shall ever gratefully remember the generous kindness with which, on more than one occasion, he came to my aid. He spared neither time nor trouble, but placed freely at my disposal his profound scholarship and his power of penetrating and suggestive criticism.

Though I cannot attempt a detailed estimate of his philosophical writings and views—and indeed I could add nothing to the admirable articles by Mr. H. W. B. Joseph[1] and Mr. H. A. Prichard[2]—there is one point on which I desire to touch. When we reflect upon Cook Wilson's many-sided nature—when we remember his brilliant intellectual powers, his mathematical capacity and attainments, his unrivalled knowledge of Greek Philosophy—

[1] 'John Cook Wilson, 1849–1915', in vol. vii of the *Proceedings of the British Academy.*

[2] In *Mind, l. c.*

it is impossible not to regret that he published, comparatively speaking, so little. There are certain philosophical subjects on which he was uniquely qualified to write. If, e. g., he had published, out of the fullness of his knowledge, a critical estimate of the more recent developments of Symbolic Logic, or, again, an edition of Plato's *Timaeus*, he would have given to the philosophical world works of the very greatest value. And yet, though such a feeling of regret is natural, there is another side to the question. For a Professor's work, interpreted as Cook Wilson interpreted it, is more than enough to absorb a man's whole strength and energy. He won for himself the love and reverence of many generations of pupils; he established a splendid tradition for his Chair; he spent himself unsparingly in the service of Philosophy. Who shall presume to say 'He might have done more', or 'He should have done otherwise'?

That all our knowledge rests in the end on immediate experience, that all mediation is grounded on immediacy, may pass at first sight for one of 'those clear truths that either their own evidence forces us to admit, or common experience makes it impudence to deny'.[1] The statement, in one form or another, is common enough. It comes to us like an old and familiar friend whom we have not the heart to distrust. Yet we shall find it

[1] Locke, *Essay concerning Human Understanding*, ii. 1, § 18.

difficult to determine *in what precise sense* immediate experience is the foundation of knowledge. Anything like an adequate discussion would carry us far beyond the limits of a single lecture. I shall have to ignore many problems that I would gladly investigate, and to take for granted much that I am ready and anxious to discuss. The utmost I can hope to do is to awaken fresh interest in some features of the subject, and perhaps to provoke the reconsideration of certain traditional theories. Nor is there anything original in what I have to say. It is old, and perhaps for that reason apt to be forgotten and worth reviving.

The distinction between Immediacy and Mediation is often applied so as to mark primarily, though not only, a difference of level in our experience. We see the sun 'as distant about 200 paces from the earth'; and this impression is 'immediate' by contrast with the knowledge of the sun's real distance which we may derive from astronomy. We 'feel that A is the thief'; and this instinctive feeling of distrust is 'immediate' by contrast with the mediate certainty resulting from proof of his guilt. We have an inexplicable dislike of Dr. Fell; and this 'immediate' and irrational emotion is contrasted with the reasoned love or hate which reflection might inspire. We are lost in admiration or reverence; sunk in contemplation; absorbed in, possessed by, the beautiful or the divine; and we call these visions of truth or beauty or divinity 'immediate',

contrasting them with the 'mediate' or reflective experiences of, e.g., the critic, the theologian, or the metaphysician.

The experiences here called 'immediate' belong to a level below, or at least other than, that of truth and falsity, in any strict sense of those terms, and are contrasted with experiences to which the distinction between true and false inevitably and naturally applies. If we speak of a 'true' instinct, a 'sound' or 'healthy' feeling of distrust, a 'true' sense of beauty or of the divine, our use of such epithets is proleptic. The 'true' instinct is one which may be converted into a reasoned knowledge. The 'sound' or 'healthy' feeling will approve itself on rational grounds, though, when thus approved, it will have passed into a form of experience which is more (even if it is also less) than feeling. And the 'true' sense of beauty or of the divine is strictly 'true' only when transformed into a philosophical theory.

If, therefore, our mediate experience or our knowledge is 'grounded' on what is *thus* immediate, the relation, whatever else it may be, is clearly not a logical dependence. The mediate experience is not related to the immediate as conclusion to premiss, or as logical consequent to logical antecedent. We do not know that A is a thief *because* we distrust him. We might, indeed, be tempted to view the Immediate as 'grounded upon' the Mediate. For the proof of A's guilt has converted our feeling into a reasoned distrust; the movement of media-

tion has ended in the grounding of the Immediate. But in the process the Immediate itself has been transformed. The original feeling of distrust is not the same as that which issues from, is justified by, the mediation; and we may continue to feel instinctive distrust of A, even if we know that B, not A, was the culprit. In short, our feeling that A is the thief is no more the logical consequent, than it was the logical ground, of the knowledge of his guilt.

So, again, the immediate experiences of the lover of beauty, of the whole-hearted seeker after truth or worshipper of the divine, are not premisses from which there logically follow the conclusions of the critic, the philosopher, or the theologian. They are *data* for analysis and criticism, materials to be sifted and tested, and in part, perhaps, converted into the substance of a reasoned knowledge. But the latter—the mediate experience—is 'built' (if we must employ so inadequate a metaphor) not *upon*, but *out of* the Immediate. The Immediate, if indeed it is the 'foundation', is a foundation which is fashioned and transformed in the process of mediation. And, notwithstanding this development, the original Immediate may, and often does, also survive. We still 'see' the sun as about 200 paces from the earth, even when we know its 'real' distance.[1] We still 'feel' the room hot, though we have established that the temperature is 'really' moderate, and that it is

[1] Cf. Spinoza, *Ethica*, ii. 35 S.

we who have a fever. And it seems at least possible to become a critic, a theologian, or a metaphysician without losing the immediate vision of beauty, the emotional faith in God, the whole-hearted absorption in the truth.

In the sense of the distinction thus imperfectly sketched, the relation between mediate and immediate experience is not a logical dependence. We start, in a sense, from what is immediately experienced; and again, in a sense, it is our aim to understand this Immediate, to give a reasoned account of it. What is immediately experienced perplexes us and sets us thinking; but the moment we begin to think, we are transforming our Immediate. There—within the analysis and synthesis which is thinking, within the process of mediation—we have antecedents and consequents, logical terms and logical relations. Often, no doubt, the mediation is but the bringing out what the initial Immediacy really is—*its* deepening, development, and growth; and our reasoned understanding is thus the grounded Immediate. But neither the process itself nor its result, if for the moment we distinguish the two—neither reasoning nor the reasoned understanding to which it leads or which it is—are logical consequents or logical grounds of the initial Immediacy.

Yet, in thus rejecting the conception of a logical connexion between mediate and immediate experience, we have stumbled upon another sense of the distinction. For we assumed that within the process of mediation

itself there are logical antecedents and logical consequents. And when it is maintained that 'all our knowledge rests in the end on immediate experience', *this*, it will be said, is the scope and significance of the distinction. Certain terms, within the process of mediation itself, are primary, the logical foundations of all the rest. And, being primary, they neither require, nor admit of, explanation or proof. Thus, there are certain fundamental principles, certain 'Laws of Thought', which are the *conditiones sine quibus non* of all sound reasoning. And again, within each sphere of inquiry there are certain basal facts, or connexions of facts, on which all other facts and connexions within that sphere depend. Unless we know *the first*—unless, at least, our reasoning is controlled by an intelligent recognition of their authority—we cannot be sure that we are explaining or demonstrating at all; and unless we also know *the second* (the basal connexions within the special sphere), we cannot explain or demonstrate any determinate fact or connexion. But if these principles and these basal connexions are known, the knowledge of them must clearly be immediate. They are, in short, primary, self-evident truths, the foundations of all our knowledge. To 'demonstrate' is to derive from indemonstrable, but self-luminous, truths; and the derivation must proceed in accordance with principles themselves self-evident. And to 'explain' is to resolve a complex into inexplicable, but self-explanatory, constituents—to re-state it

in terms of elements recognized immediately for what they are.

That all reasoning is based on the immediate intellectual apprehension of self-evident truths is the doctrine not only of Aristotle's *Posterior Analytics*, but also of the *Regulae* of Descartes. According to Aristotle, the man of science, as the result of certain preliminary investigations with whose nature and method we are not here concerned, is enabled to formulate various προβλήματα. Each of these προβλήματα is a judgement, true but as yet unproved, asserting the connexion of a property (D) with its appropriate subject (A).[1] The connexion thus provisionally asserted has to be established—the unmediated judgement (A–D) has to be converted into a demonstrated truth of science. When the demonstrator starts, there is an 'interval'[2] whose ends are marked by the two terms[3] A and D; and this 'interval' between the subject and its property is as yet unfilled for his knowledge. His object is to discover the middle term or middle terms which are required to fill this gap—the links connecting A with D—and thus to substitute, for the unfilled interval A–D, a 'close-packed' interval,[4] i.e. an unbroken suc-

[1] The property is a *proprium* (a καθ' αὑτὸ συμβεβηκός), and the subject is an *infima species* (an ἄτομον εἶδος) of the γένος which is the subject-matter of the science. The connexion is a necessary *nexus* between terms themselves universal.

[2] A διάστημα. [3] The ὅροι.

[4] Cf. e.g. *Post. Anal.* 84 b 31–85 a 1. The term πυκνοῦσθαι is of course a reference to musical theory.

cession of minimal intervals or immediate judgements. The connexion of D with A will then be manifest as the inevitable conclusion of the self-evident connexion of D with C, of C with B, and of B with A. To demonstrate the necessary connexion of D with A is thus to analyse the 'stretch' between them into the indivisible, elementary 'stretches'[1] of which it is composed. These simple or indivisible intervals (the judgements A–B, B–C, C–D) are the primary, self-evident, and yet necessary truths, the immediate premisses, which the proof that A must be D presupposes as its logical foundations.

Such self-evident and yet necessary truths correspond to the 'simple propositions' or 'simple ideas' which, according to Descartes, are the intuitively apprehended *data* of all our knowledge. The human intellect, he maintains, is infallible in the exercise of the two functions which express its own nature—infallible in its acts of 'intuition', and infallible in its inferential movement.[2] Thus, I can apprehend the necessary, but immediate, implication of the two elements in a self-evident *datum* or 'simple proposition'. I can 'see', e.g., that '2 + 2 = 4'. and that 'my self-consciousness involves my existence', And, by an unbroken inferential progress from self-evident to self-evident, my intellect can move to the infallible apprehension of a mediate necessary truth.

[1] ἄμεσα or ἀδιαίρετα διαστήματα, ἄμεσοι προτάσεις, στοιχεῖα, &c.

[2] Cf. e. g. *Regulae*, iii.

I may grasp the mediate necessary connexion of A with D, as the result of a series of acts of intellectual insight in which I have 'seen' the immediate necessary connexions of A with B, of B with C, and of C with D. However long and complex the mediation, however many links the chain of proof may contain, the inference is infallible because each of its steps is an infallible intuition.[1]

Yet the two great advocates of this analysis of mediation themselves bear witness against it. The failure of Aristotle's attempt to prove[2] that there must be immediate premisses in the texture of knowledge is not perhaps of much importance. But the thesis is irreconcilable with his general view of the relation of premisses to conclusion. For if, as he steadily insists, the demonstrated conclusion is the fulfilment of its premisses; if it is *their* realization, in which alone they attain their full significance: — they cannot be self-contained, self-evident truths in their isolation. The process of mediation is not the adding of line to line to form a longer line, nor the attachment of self-supporting bits of truth to one another. It is the unfolding of a germ—a natural development or growth: and there is, so to say, nothing in it which comes out at the end as it went in at the beginning. Nor does

[1] For a fuller account of the theory of reasoning in the *Regulae* see my *Essay on the Nature of Truth*, pp. 69–72.

[2] Cf. *Post. Anal.* A. 19–22.

Descartes in his own reasoning support the theory of the *Regulae*. He claims, indeed, to have found a primary self-evident link of the chain of knowledge in the 'simple proposition' that my self-consciousness involves my existence. His next step is to establish the necessary being of God; and this too—the necessary implication of existence in the 'essential nature' of God—is, he maintains, a self-evident truth. But the welding together of these two self-evident links profoundly alters the meaning of the first. The 'necessary being of God' shows itself as involved in 'my being'; and as this implication emerges, 'my being' is revealed in a different light. For it now appears that God is presupposed as that without which neither I nor any other finite existent could be at all, so that it is only within, and by virtue of, God's creative and sustaining power that 'my self-consciousness involves my existence'. The supposed self-supporting and self-contained *nexus*, the supposed primary *datum*, is manifestly derivative and contingent; and my knowledge of it is mediated by my knowledge of God.

The analysis of mediation, thus advocated and abandoned by Aristotle and Descartes alike, treats Intelligence and the Intelligible as if they were mathematical unities or mechanical conjunctions. A chain and its links, a line and its contiguous minimal intervals—what possible analogy do these bear to a whole of demonstrated truth, to an inference or a system of

knowledge? The 'logically-inevitable' is the very antithesis of the 'externally-connected'; and the 'spatially-contiguous' (or 'continuous') is but a travesty of the 'logically-one'. A theory of reasoning which relies on such analogies stands self-condemned. We might as well base our analysis of mediation on the equally plausible, and equally barbarous, assumptions that knowledge is an 'edifice', that truth is a 'ladder', and that an argument has 'steps'.

What, then, becomes of the doctrine that 'Mediation is grounded on the Immediate'? Are there no self-evident principles of reasoning? And are there no self-evident truths in the texture of knowledge—or none, at least, to guarantee our reasoning as the foundations on which it rests?

There is a sense in which every judgement is infallible. For, as Mr. F. H. Bradley[1] has expressed it, 'we cannot, while making a judgement, entertain the possibility of its error'. But every judgement alike is *thus* 'infallible'; and though 'infallible', it may be erroneous, and we ourselves may come to recognize its falsity. Again, there is a sense in which all truth is self-evident. For 'truth', in Spinoza's famous saying, 'is the criterion of itself and of the false, as light reveals itself and darkness'.[2] But to deny that truth is con-

[1] *Essays on Truth and Reality*, p. 382.

[2] *Ethica*, ii. 43 S. 'Sane sicut lux seipsam et tenebras manifestat, sic veritas norma sui et falsi est'.

stituted by conformity to an external standard, is neither to suggest nor to support a distinction between truths which are, and truths which are not, self-evident; and it is this distinction that is in question and must, it seems, be surrendered.

Doubtless nothing could be intelligible, and there would be no sane reasoning, unless there were certain *conditiones sine quibus non* of Being and of Truth to which any and every fact and connexion of facts, and any and every reasoning, are bound to conform. And if, reflecting on this all-pervasive character of the Intelligible and of Intelligence, we formulate certain 'Laws of Thought', we are condensing into isolated judgements truth for which there is overwhelming evidence. Such judgements are 'indubitable'; for an *intelligent* doubt presupposes knowledge, and any and every knowledge inevitably confirms them. But the truth which they summarily express is not comprised within their formulation. The 'evidence' for them is anywhere and everywhere, but not contained within 'themselves'.

Doubtless, also, for each special science or body of knowledge there are certain more special and concrete conditions—*conditiones sine quibus non* of the intelligible, quasi-individual, wholes of Space, of Number, of Life, of Political Society—conditions, therefore, to which geometrical, arithmetical, biological, political reasonings must respectively conform. And if we reflect upon the

distinctive form of unity thus exhibited by each department of being—upon the dominant character pervading the differences within it and their cohesion—we may formulate certain 'Axioms', condensing once more into isolated judgements truth for which the evidence is overwhelming. Such 'truths' are stable, not because they, as judgements, hang together of themselves, but because they are but the concentrated expression of a whole of knowledge. The science as a whole falls short, indeed, of absolute self-containedness. It is not a body of demonstrated truth completely self-evident; for complete self-evidence demands, as its inseparable complement, perfect mediation. If a science were a plurality of elements, each precisely and purely conceived, each intelligibly necessitating each and all, and necessitated by each and by all, then (but only then) the mediation would be perfect, and the whole thus constituted would *eo ipso* be immediately intelligible, transparent, or self-evident. Nevertheless, the evidence for such an axiom as that 'two straight lines cannot enclose a space' is clearly overwhelming. Deny it—even doubt it—and the whole of plane geometry comes tumbling about your ears; and who shall say where the wreckage will stop, or what department of our knowledge would survive? As with the 'Laws of Thought', so with such more special principles of reasoning, the would-be doubter will search in vain for a knowledge or experience which does not commit

him to them—for a position entitling him to raise an intelligent doubt against them.

There are, it may be objected, within the texture of a science certain judgements, which hang together of themselves and are self-evident even when isolated from the context of mediation to which they belong. We apprehend two differents, x and y, inseparably and yet immediately cohering. The addition of 2 to 2 carries with it, without the interposition of a third term, the sum 4. Or, to take a better example—for there may be 4 without the addition of 2 and 2, and the cohesion of *this* x and y is thus imperfect—the equality of the two sides of a triangle immediately and yet necessarily implies, and is implied by, the equality of the subtended angles. Here, it may be said, we have an item of absolute truth within the texture of a science. And if the chief aim of science is the discovery and establishment of 'Laws of Nature', what are these but typical examples of the inseparable, reciprocal cohesion of two different elements, each of which finds its inevitable complement in the other? The 'Law', or the 'immediate' necessary cohesion, is discovered indeed and established by a process of mediation. But, once established, it can be lifted in thought clear of any context, and is thus apprehended as a self-contained item of absolute truth.

Yet, on closer inspection, the dream evaporates; there are no atomic absolute truths within the texture

of a science. What we have, in the case supposed, is a pure, reciprocal, hypothetical judgement—if and so far as anything is x, then and so far it necessarily is y, and *vice versa*. And this judgement is the analysis and explication of a something which is both x and y. x alone is not the ground of y, nor y alone the ground of x. Neither x nor y, nor even the *nexus* along with the connected terms, are 'self-evident'. The equality of the two sides is not a self-evident fact from which the equality of the subtended angles follows; nor is the latter the self-evident ground of the former. The *nexus* in its entirety is the inevitable explication of an Isosceles, and holds only within it.

Would the objector reply, 'Then the analysis of the Isosceles *is* self-evident; the Isosceles is a whole of elements whose apprehension is but the clear and steady vision of themselves, and the Isosceles is given immediately in our experience of the extended world'? Such an answer does not seem to meet the difficulty. The analysis—the reciprocal hypothetical judgement—is true if (and only if) the Isosceles *is*, or is assumed to be. And its truth, resting thus on that assumption, stands and falls with the whole reasoned explication of Space. For the being of an Isosceles is not itself a 'self-evident' fact or truth. Given our immediate experience of the world of solid bodies, certain types of surface (the Isosceles amongst them) inevitably reveal and distinguish themselves in the mediation which alone

can render the spatial character of that world intelligible. But our 'immediate experience' of the world of solid bodies is one of those 'Immediates' of which we spoke at first -- experiences neither true nor false, neither grounds nor consequents of mediation.

Philosophy and the Christian Religion

An Inaugural Lecture
delivered before the University of Oxford
on May 4, 1920

BY

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1920

PHILOSOPHY AND THE CHRISTIAN RELIGION

It is a time-honoured custom that a newly appointed Professor should introduce his Inaugural Lecture by a commendation of his predecessor in the chair. To this custom, seemly and pious though it be, one who is not only a newly appointed Professor but the first Professor to be appointed to his chair is necessarily unable to conform. Nevertheless, since the Founder of the Professorship of the Philosophy of the Christian Religion, in connecting it with this ancient and famous College, in which he himself studied in his youth, has connected it with a Society of which it may be said without fear of contradiction that no other in this University has made a greater contribution toward the philosophical study of religion in general and of the Christian religion in particular, he has, as it were, provided his first Professor with predecessors, the recollection of whom is an incitement at once to zeal and to humility: to humility, when he remembers who they were that in this place have meditated upon the high themes which it will be his duty to expound; to zeal, when he puts himself in mind that only by the most conscientious activity in his task can he hope to avoid disgrace from the inevitable comparison of his own shortcomings with the eminent gifts of those whose successor he may thus seem to be.

I do not exhaust the catalogue of those members of this House who have distinguished themselves in the

history of religious thought, but only mention the most celebrated among them, when I name Joseph Butler, John Henry Newman, and Matthew Arnold. Notwithstanding striking differences, these three men have also much in common; and more than can be accounted for by the academic tradition which links with the author of the *Analogy* the great leader of the Oxford Movement of the last century, who has borne witness that the study of that famous book—then at the height of its influence in the Schools of Oxford—was an era in his religious opinions; and with both these the most accomplished poet of the undergraduate generation which watched spell-bound that leader's gradual withdrawal from the University over whose youth his genius had held so potent a sway, and which he had once believed was to be his 'perpetual residence even unto death'; a poet, moreover one of whose earliest sonnets was written—in a mood, it is true, of some impatience with their analytic method—in his copy of Butler's *Sermons*.

The Oriel worthies whom I have named were linked together not only by the bond of academic tradition but by a mastering love of righteousness, which made them all in their philosophy of religion emphasize above everything else the connexion of Religion with Morality; and also by a certain austere melancholy in their outlook upon life, which, if more obvious in Butler and in Newman than in Matthew Arnold, whose keen wit and gay *persiflage* may sometimes cheat the student of his theological works into misapprehension of his true temper, is yet plain enough to the sympathetic reader of his poetry.

The story is well known which tells how Butler 'was walking with his chaplain Dr. Foster when he suddenly turned towards him and with much earnestness said:

"I was thinking, doctor, what an awful thing it is for a human being to stand before the Great Moral Governor of the world to give an account of all his actions in this life"'. It is a characteristic expression of his mood, the mood of one preoccupied with the sense of moral responsibility, and in his religion more familiar with its awful than with its gracious aspect—with the 'frowning Providence' of God than with the 'smiling face' which, as a poet who grew to manhood in Butler's lifetime reminds us, is hidden behind it. A brilliant orator and divine, the lamented friend of many among us, Henry Scott Holland, some years ago devoted a Romanes Lecture to showing us Butler as an optimist; but he did not maintain that his optimism was an optimism of temperament, nor yet that it is apparent on the surface of Butler's teaching.

When we pass from Butler to Newman, we find that so many able writers have devoted themselves to the exploration of his intellectual and religious character as to make it unnecessary for me now to dwell either upon his intense conviction of the supremacy of Conscience as the 'aboriginal vicar' of the God for whose existence it was to him the one grand argument, or upon those qualities of his genius which invest his religion with an atmosphere of severe and as it were awestruck self-restraint, so far removed from all exuberance, whether of feeling, of speculation, or even of faith, as to make unsympathetic critics doubt the security of his hold upon his professed convictions and question whether he ever attained to the enjoyment of that 'joy and peace in believing' with which St. Paul wished his Roman correspondents to be filled.

Nor is it necessary to do more than remind you how in Matthew Arnold also his ethical interests dominated

his philosophy of religion. It has been said of him with truth that 'he inherited his father's ethical cast of mind; conduct interests him more than genius', and in this, as the same writer points out, lies the explanation of his defects as a critic of any literature other than that which is a vehicle of moral ideas. He defined Poetry as 'criticism of life'; Religion as 'morality touched by emotion'; and God as 'the everlasting power not ourselves which makes for righteousness'. And in him too this preoccupation with morality, which he shares with Butler and with Newman, is allied as in them with a pervading melancholy, tenderer and less severe than theirs, but also profounder, since he could not rest satisfied in the faith which had given to them the assurance of an ultimate solution of the 'doubts, disputes, distractions, fears' which beset the inquisitive mind in this enigmatic world.

It has been a characteristic of English thinkers, and a characteristic intimately associated alike with the distinctive merits and with the distinctive defects of English philosophy, to shun ambitious efforts of metaphysical construction and to concentrate their attention upon the field of experience directly before them, so careless of what would elsewhere be thought the chief business of a philosopher, the propounding of an 'intellectual system of the universe', that even to the inquiry what is their *Weltanschauung*, their need of the world, they are sometimes not ashamed to reply with one of the last generation who carried this national tendency to an extreme that they 'have not the slightest idea'.

The three men of whom I have been speaking were in this respect thoroughly English. No doubt neither Butler nor Newman would have been at a loss to say what was his view of the world. Either would have

described it as a Christian view. Nor do I mean to insinuate that it would be just to represent either the one or the other—though some have done so—as in truth a philosophical sceptic, who, finding reason fail him, has turned his back upon it and taken refuge in a dogmatic creed. Yet it is, I think, true that the strict delimitation of the spheres of Reason and of Revelation, which the traditional Natural Theology of modern Europe has inherited from St. Thomas Aquinas, combined with the speculative opportunism, if I may so call it, which I noted above as characteristic of English philosophy to hinder both from giving to their philosophy of religion a truly philosophical form. And the same must be said of Matthew Arnold. Missionary as he was to British Philistia of that enthusiasm for 'ideas' which had in Germany inspired so many mighty efforts of philosophical system-building, he himself shared notwithstanding the Englishman's instinctive distrust of such world-embracing schemes; while in his case the distrust extended to that particular scheme which for Butler and Newman had lain in the background of their moral and religious speculations, imposing itself with the authority of a divine revelation that, in Newman's view at least, when once accepted, no more 'abides our question'. For this wanderer

> 'between two worlds, one dead,
> The other powerless to be born'

there was nothing to take in the background of his thought the place of this vanished system of dogma.

It is not a mere accident that in a philosopher or theologian a preoccupation with ethics to the neglect of other aspects of life should go along, as, in the three men we have been discussing, we saw it go along, with a certain inclination to what is often loosely called

pessimism, the mood which dwells by preference among the shadows and riddles of life and finds something uncongenial in the confidence of those who see the whole landscape flooded as it were with the light whether of philosophic truth or of mystic certainty. For morality reveals the discrepancy of what *is* with what *ought to be*, of the real with the ideal; and, although it is precisely the function of religious faith to assure us that the Good is after all supreme, to men of the type of Butler and (we may add) of Kant, Religion appears in the latter's phrase as a 'postulate' of Morality, as required by us for Morality's sake rather than as taking Morality up into itself. That this is less true of Newman's religion than of Butler's and Kant's is, I believe, to a considerable degree due to Newman's possession of a stronger artistic interest and capacity than theirs—a stronger even, I venture to think, than Matthew Arnold's, despite the more considerable poetical achievement of the latter.

Of our three Oriel thinkers Newman probably reminds us least of the Stoics; and the Stoics are, in the history of European thought, the chief representatives of a type of religion to which Matthew Arnold's definition—though under no circumstances can it be regarded as a good definition, failing as it does to fulfil essential requisites of any definition—might at any rate seem most plausibly to apply.

On the other hand, it must always be borne in mind that even in their excessive preoccupation with ethics the theologians to whom I have referred reveal the Christian affinities of their thought. For it was characteristic of Christianity from the first that it established Morality at the heart of Religion. In doing this it approved itself the heir of the Jewish prophets who interpreted ethically the notion of the holiness of Jahveh, and of the Greek

philosophers, the greatest of whom had laid down as a canon of theology that nothing but what was good was to be ascribed to God. But the Greek philosophers, in lifting their doctrine of God to a higher moral plane, had on the whole acquiesced in leaving the religious institutions of their people on a lower; and though, in proclaiming that the good life is the true service of God, Christianity did but continue the teaching of the Jewish prophets, Christianity was so far more favourably situated for expressing this truth that its own special rites had from the beginning been symbolical expressions of the worship in spirit and in truth and were not part of a system originally no more ethical than any other primitive ritual, though now by the religious leaders of the nation either disparaged in comparison with acts of justice and mercy or treated as typical of a more reasonable service, of the oblation of the broken and contrite heart or of the devotion of the whole man to the task of accomplishing the holy will of God.

I think it may be confidently asserted that the foundation in Oxford of such a Professorship as that which I have the honour to hold would have been impossible in the generation of any of the three famous Oxford men whom, as members of this College and contributors to the philosophical study of the Christian religion, I have ventured to suggest that an Oriel Professor of the Philosophy of the Christian Religion might regard as his predecessors. Neither in the days of Mr. Thwackum and Mr. Square, nor in those of the personages of *Loss and Gain*, nor again in those which saw the 'neutral and philosophic inquiry' into the rise and extinction of Deism in the eighteenth century contributed by Pattison to *Essays and Reviews* received, as the author tells us it was received, with 'a chorus

of blatant and ignorant howling'; in none of these periods would the spirit of party which prevailed at Oxford have permitted the establishment of the chair whose work it is to-day my high privilege, however unworthily, to inaugurate. The change in the intellectual and religious atmosphere of the University which has rendered it possible now is a thing for which we may well be thankful. Into the deeper causes of this change, which are to be sought in the general movement of British and European thought during the last half-century, I do not now propose to enter; but it cannot be doubted that it has been greatly assisted by the opportunities which the opening of our ancient seats of learning to men of every opinion in matters of religion has given for mutual understanding among the inheritors of very various religious traditions who have found themselves colleagues in the pursuit of truth and in the education of their younger fellow-students. Much prejudice and bitterness, the offspring of ignorance and separation, has been thereby removed, and replaced by sympathetic respect and a sense of comradeship with neighbours as earnest as ourselves in aspiration after the things that are true and just and lovely and of good report.

But, whatever its causes, the fact of the change itself is beyond dispute. We find it acknowledged, not only by those who would defend some particular religious system, but by men who are unable to attach themselves to any such, that religious experience is a genuine form of spiritual life which must have its own contribution to make to our knowledge of the world. Nor is it only that the investigation of religious experience is recognized as an important branch of that examination of the ways of the human mind which we call Psycho-

logy; the comparative study of Religion under the guidance of that idea of evolution which has become the ruling principle of all anthropological inquiry has made it impossible any longer to confine the philosophical consideration of Religion to certain very general topics, common to many or to all forms of Religion—such as, for example, those indicated by Kant's enumeration of God, Freedom and Immortality as the grand objects of metaphysical speculation.

It has taught us that such topics are themselves the products of reflexion by the human mind at a comparatively advanced stage of mental cultivation upon experiences only originally obtained through some one of the definite forms in which the religious activity natural to man expresses itself, and which we call 'religions'. Thus the Philosophy of Religion is seen to be something which neither would nor could take the place of Religion itself, and so ceases to be necessarily regarded by loyal members of particular religious communities with suspicion as likely to be hostile to their own particular religion; or by its own professed students as requiring of them an attempt, like that of the Soul in Tennyson's *Palace of Art*, to

> 'sit as God, holding no form of creed
> But contemplating all'.

On the contrary it becomes plain that to philosophize effectively upon Religion while having no religion is as impossible as to philosophize effectively upon Art while not oneself possessing the experience which is to be had only in and by the actual enjoyment of Art as it exists in the poetry or the music or the painting or the sculpture or the architecture in the creation of which the artistic impulse has found expression.

Philosophy and Religion have always been closely

associated, though their relations have not always been amicable. Philosophy springs out of Religion, because it is in Religion first that man expresses his concern with the Whole, the All, the Ultimate, with that which underlies, lies behind, comprehends (whichever metaphor may be preferred) himself and the many things in the midst whereof he finds himself, *totum hoc quod sumus et in quo sumus*, as Tertullian puts it. This concern distinguishes him, as we suppose, from the other animals, and Philosophy is nothing but the deliberate and disinterested investigation of the object of this characteristically human interest. Religion and Philosophy are thus concerned from the first—and Religion earlier than Philosophy—with the same object. And because Religion comes before Philosophy, certainly in the life of human society and commonly also in the life of the individual philosopher, therefore, since it belongs to the essence of Philosophy that it should take nothing for granted so as to refuse to test and examine it before admitting it to be true, Philosophy cannot avoid taking up at the outset an attitude of independence toward the religious tradition which it finds in possession and which embodies the first feelings and speculations of men about the encompassing mystery of the world; an attitude of independence which may easily pass into one of hostility.

This is especially likely to be the case if the representatives of religious tradition, on their side, take up an attitude of repression towards the now awakened activity of the intelligence, which is seeking to comprehend the whole experience which lies before it, that is, to philosophize ; if, instead of welcoming this as just that special form of worship which the intellect has to bring —for, as Hegel said, ' Thinking too is divine service ',—

they deny the claim of the intellect to leave no part of experience uninvestigated and to ascertain, in the case of every part of that experience, the nature of its relation to the rest.

But even if this cause of enmity should not exist, it is inevitable that there should be tension; nor perhaps, as regards those to whom the problems of Philosophy present themselves as real problems at all, is it to be desired that it should be otherwise. For it belongs to the nature of things that there should be appointed to those who are to prevail in the spiritual life a night of wrestling with God, a dolorous way of the Cross, which may even culminate in the supreme trial of the withdrawal for a while of the consciousness of God's presence from the soul; and there are those for whom this night of wrestling, this way of the Cross, takes the form of philosophic doubt. It is not, I am sure, possible, nor is it really to be wished, that some apologetic device should be found which would exempt those instructed in it from such trials altogether. *Militia est vita hominis super terram,* and we must not expect victory without battles. The strain on religious faith involved in philosophic thought is as much in the order of the day, though fewer are called upon to face it, as the strain on moral obedience involved in the natural development of our bodily appetites.

But in the case of this last-mentioned strain, though no doubt the bodily appetites may justly be said to have a natural claim to legitimate satisfaction, the moral law stands over against them armed with what Butler has called its 'manifest authority', while they are after all no more than instinctive desires. Quite different is the relation of Religion to the intellectual passion which culminates in Philosophy or the love of wisdom. For it

is the special characteristic of the tension between Religion and Philosophy that the claim of each is unlimited. Philosophical speculation, it has been said, knows no Sabbaths; there is no part of life which it can acquiesce in leaving alone. And the same may be said of Religion; we may owe to it Sabbaths from other occupations, from business or from pleasure; but it cannot allow that there is any part of life to which God has no rightful claim; and so it knows no Sabbaths of its own; rather it is true that 'the priests in the temple profane the Sabbath and are blameless'.

Hence it is not to be expected but that two such exacting powers should come into collision with one another; and the only true union between them must be an equal marriage, of mutual devotion and mutual respect, both alike without reserve. Philosophy cannot suffer Religion to claim as it were a secret chamber, into which Philosophy may not intrude; nor can Religion suffer Philosophy to treat as illusory that which Religion knows by experience to be real. But, as Philosophy must allow Religion to claim that the witness of the religious experience to the nature of Reality be not ignored, so must Religion allow Philosophy freely to examine and criticize the religious not less than any other kind of experience.

Again, Religion cannot in the end take the place of Philosophy, nor Philosophy of Religion. It is true that there is a sense in which Religion does the one and Philosophy the other. There are many people who are not called upon to philosophize; and, so far as all thinking persons must have some view of the whole (for it is just the possession of a view of the whole that makes men rational beings), such persons often possess this in and through their religion; and so, *for them*,

Religion does take the place of Philosophy. On the other hand there are some persons—we may instance Aristotle and Spinoza—who seem to find in the pursuit of Philosophy a genuinely religious experience; but what we find in them is perhaps better described as a fusion of Philosophy with Religion than as a supersession of Religion by Philosophy.

It is, moreover, true that, in the course of the development of the powers of the human mind, Philosophy comes at a certain stage of civilization to do what at an earlier was, as we saw, left to Religion—to provide a view of the world. Hence, as some people suppose not only that a theory of the world is always implicit in the religious consciousness (as no doubt it is), but that it constitutes the whole essence of Religion, it seems to them that Philosophy has to a great extent already taken, and is destined in the future altogether to take, the place of Religion. But there is in Religion something—and that its central characteristic—namely, what I may call the activity of *worship*, our natural need of which cannot be satisfied by Philosophy apart from Religion. And so Philosophy cannot take the place of Religion, nor, except for persons who have not the capacity for philosophizing, can Religion take that of Philosophy.

So far I have been speaking of Religion in general, and what has been said would be true of every Religion whose followers have advanced to a stage of intellectual development at which Philosophy has come to distinguish itself from Religion, and the tension between the two has made itself felt. But if the Christian Religion could be fairly described, in words which Mr. Hardy in his *Dynasts* puts into the mouth of the Spirit of the Years, as

'A local cult, called Christianity',

it would be strange to speak specifically of the Philosophy of the Christian Religion. We may be justified, however, in so speaking, if we recognize in the history of Christianity, as I think we are entitled to recognize, not indeed the only but the main line of the religious development of the human spirit; just as we may recognize in the line of intellectual descent which begins with those Ionian fathers of European science who first set out upon the disinterested quest of knowledge for its own sake the main line of the scientific development of our race, in which other nations have come and will come to take their part, but only so far as they connect themselves with that continuous tradition, while bringing with them gifts and capacities for the work of carrying it on which constitute their own peculiar contribution to it. Without regarding the other religions of the world as simply false religions, or as having nothing of value of their own to contribute to our knowledge of the God who has nowhere left himself without witness, it is, I think, in accordance with the general teaching of history to see in Christianity the principal stream into which the other currents of religious experience must discharge their waters if there is ever to be one River whose flood shall make glad the city of God; yet only so there to lose themselves that the mighty torrent which has received them shall be the more refreshing and vitalizing for the mingling in its bosom of these tributaries which so long had flowed apart in distant channels.

If Christianity seems more than some other religions to resist reconciliation with Philosophy, this will, I think, be found to be not because it is *less* but because it is *more* philosophical than they. The importance assigned by it to the historical element is often

thought to present a peculiar difficulty to Philosophy. Philosophy as such has indeed no jurisdiction in matters of History; yet there is a real solidarity between the right of Philosophy and that of History to reject external dictation each in its own department. Freedom of thought everywhere is the greatest of philosophical interests; and Philosophy is thus concerned to lend its support to the claim made by historical science to examine any historical statement whatsoever, whether in Bible or in Creed, just as it would any other. But the importance of the historical element in Christianity—and its importance there is greater than in any other religion—though it of course exposes it more than any other religion to that particular kind of doubt which we call historic, yet does not stamp it as a less philosophical religion than those which are not so much exposed to this sort of doubt. Rather it stamps it as a more philosophical. For the problem of the relation of abstract or universal significance to concrete or historical fact is a question in fighting shy of which Philosophy does but refuse, so to say, to take its last hurdle and surrenders the hope of winning its race. Religions which remain in the region of the universal and treat the individual and the historical as something illusory may seem to afford to the philosopher a quieter shelter than Christianity; but only at the cost of abandoning the supreme venture to which, as a philosopher, he is committed—that of understanding not merely universal principles rapt away into a solemn rest 'above the smoke and stir of this dim spot which men call earth', but the real world of historical individuals, in which alone these principles can live and move and have a genuine existence. At the same time, while the implication of Christianity with history dis-

tinguishes it to its advantage, in a philosophical point of view, from religions to which history is but a veil of Maya, its abstruse-sounding dogmas, which we are sometimes tempted to think might well be swept away in favour of a simpler faith consisting in the following of a historical example and of an impressive moral teaching, constantly bear witness to the power which Christianity possesses of fulfilling, probably to a higher degree than any other of the religions of the world, the demands of philosophical speculation.

The Christian Church may often have erred in the past by insisting on individual believers accepting formulas to them unintelligible, or assenting to statements of the truth of which they could not certify themselves. But such error, lamentable in its results as it has often been, has not been due to mere pride and ignorance. It has been due to pride and ignorance taking occasion by an abiding sense of the fullness, the wholeness, the comprehensiveness of that manifold eternal life to which the Church conceived herself commissioned to bear witness. *Corruptio optimi pessima.* What is most unlovely in the history of Christendom has been rendered possible there by the very characteristics which warrant the claim of Christianity to do more justice than any other religion to the whole riddle of human life, to declare more adequately than any other the whole counsel of God. Christianity, in virtue of the comprehensiveness of the religious experience for which it stands, has again and again done good service to Philosophy by affording a refuge to the recognition of aspects of reality which the philosophical fashion of the day was apt to neglect.

There are times and places when a certain type of

thought prevails, to which, in view of the obvious distinctness of individual men from one another, to talk of a common consciousness in which many may share, of a responsibility for what others than oneself have done, is at the best to amuse oneself with metaphors, at the worst to talk a mischievous kind of nonsense. Such a type of thought is bound to misconstrue or to ignore some quite ordinary experiences, which would not usually be considered what is called 'mystical' at all; for example, our pride or shame in the triumph or humiliation of our nation, where we as individuals may have had no part in it—perhaps were not even born when it occurred. But to this type of thought the Christian religion can never surrender itself; for it empties of all their meaning the doctrines of the Trinity, the Incarnation, the Atonement. Hence at times when this type of thought—call it nominalism, positivism, or what you will—is dominant, Christian theology has remained unsubmissive and has borne witness to the unity that is in the manifold, the identity that is in the diverse, until it has awakened Philosophy to react from the one-sidedness of the prevailing doctrine and acknowledge once more in what is called the 'Universal' no mere empty if convenient phrase, no mere figure of speech, but a genuine feature of reality, without which the world would be resolved into chaos.

On the other hand, there have been times when a quite opposite type of thought—a type that is often spoken of as pantheistic—has been in the ascendant; when all distinctions seem to be lost in the overpowering presence of the all-embracing Unity. This type of thought easily makes room for the doctrines which its opposite finds so difficult to assimilate; but

the Christian Church could only surrender herself to it by forgetting doctrines, such as those of a particular providence and of personal immortality, with which she cannot be content to part, and in general by turning away from that insistence on a real historical revelation—on 'Jesus Christ come in the flesh'—which in her first period of doctrinal controversy was her watchword against the Gnostics, who sought to see in her Gospel only a symbol of something not historical at all. Hence we find that in periods when what I have called—not as thinking it a good name for it, but because it will perhaps express most readily what I have in mind—the 'pantheistic' type of thought is doing less than justice to the historical individuality of human persons, then Christianity has more than once been the inspiration of a resistance to it or of a reaction from it, and thus has helped to redress the philosophical balance.

Such services Christianity has rendered and still renders to Philosophy. I will touch very briefly on two others.

It is remarkable that the effort of the Christian Church to find a statement adequate to her consciousness that there had been sent forth into the hearts of her members a Spirit proceeding from her historical Founder which cried in them 'Abba, Father'—which, that is to say, made them aware of being by adoption through him that which he naturally was, Sons of God; a statement, moreover, which should so express this consciousness as not to degrade it to any lower level than that of reconciliation to the one Supreme Godhead; should have issued eventually in a conception of what Spiritual Being must be at its highest and fullest which may be considered, I venture to think, not only re-

ligiously but even in some ways philosophically more satisfactory than the kindred attempts (by which of course its formulation was throughout greatly influenced) made by the Greek philosophers from Plato to Plotinus. Yet so, as it seems to me, it was.

Again, in connexion with the elaboration of this same doctrine of God as Spiritual Being at its highest and fullest, Christianity gave the greatest assistance towards the development of the notion of Personality, a notion of the profoundest importance, for which ancient philosophy had no special name at all. It was in the study of the nature of the Christian God and of the Mediator between God and man whom the Christian Church recognized in her Founder that the problem of Personality was (one may almost say) first seriously undertaken.

The primary motive which led to the construction of the classical Christian theology was indeed not so much philosophical as religious; and its principal value lies precisely in this, that it embodies the results of a great movement of religious experience. Yet it is none the less valuable, it is indeed the more valuable, that it embodies along with this, or rather as part of this, the results of an active philosophical criticism of that experience, carried on by its exponents in self-defence against the doubts raised from time to time by the bolder and less docile minds in the community. If Christian theology is to progress, Christians must be not only as fearless in philosophizing about their religious experience as were Fathers and Schoolmen in the centuries that are past, but must be yet more fearless than they. They must not leave it to others to raise doubts, and count themselves fortunate if none are raised. They must raise them for themselves and,

when their fellow-Christians raise them, they must not treat them as showing a lack of love or loyalty; but rather as proving the sincerity of their faith and as offering to God the due service of their understanding. Nor ought they to charge them with failing to exhibit that spirit of the little child which is required of those who would enter into the kingdom of God; for nothing is more childlike than the persistent asking of embarrassing questions.

Attempts to sever the connexion between theology and metaphysics have from time to time been made; such as those which in the middle ages took shelter under the doctrine of a double truth, that is the affirmation that what is true in philosophy may be false in theology and vice versa; or that again which in modern times is associated with the name of Albrecht Ritschl. Attempts of this kind may be defended as means of securing to metaphysics or to theology, as the case may be, a rightful freedom from dictation on the part of the other. The mediaeval doctrine of a double truth was usually urged in the interest of Philosophy; the Ritschlian protest against a metaphysical theology was brought forward in the interest of Religion and particularly of Christianity. But whatever temporary and relative convenience there may be in such a protest when it is necessary to pause and consider how much of a traditional system of doctrine has a genuinely religious experience behind it, the encouragement of endeavours to make theology independent of metaphysics, if carried so far as to aim at a permanent estrangement between Christianity and Philosophy, would be for Christianity a policy of suicidal cowardice. *Homo sum*, says the old man in Terence, *humani nil a me alienum puto.* It is a saying which we may con-

fidently put into the mouth of the religion which centres in the affirmation that manhood is taken into God. And of things that are human there is nothing more characteristically and distinctively human than Philosophy.

NOTE

My thanks are due to the General Secretary of the Student Christian Movement of Great Britain and Ireland for his ready consent to my use in this Lecture of some paragraphs which have already appeared in a paper contributed to *The Student Movement*.

SCIENTIFIC METHOD IN PHILOSOPHY

THE HERBERT SPENCER LECTURE

DELIVERED AT THE MUSEUM

18 NOVEMBER, 1914

BY

THE HON. BERTRAND RUSSELL, F.R.S.

M CM XIIII

ON SCIENTIFIC METHOD IN PHILOSOPHY

When we try to ascertain the motives which have led men to the investigation of philosophical questions, we find that, broadly speaking, they can be divided into two groups, often antagonistic, and leading to very divergent systems. These two groups of motives are, on the one hand, those derived from religion and ethics, and, on the other hand, those derived from science. Plato, Spinoza, and Hegel may be taken as typical of the philosophers whose interests are mainly religious and ethical, while Leibniz, Locke, and Hume may be taken as representatives of the scientific wing. In Aristotle, Descartes, Berkeley, and Kant we find both groups of motives strongly present.

Herbert Spencer, in whose honour we are assembled to-day, would naturally be classed among scientific philosophers: it was mainly from science that he drew his data, his formulation of problems, and his conception of method. But his strong religious sense is obvious in much of his writing, and his ethical preoccupations are what make him value the conception of evolution—that conception in which, as a whole generation has believed, science and morals are to be united in fruitful and indissoluble marriage.

It is my belief that the ethical and religious motives, in spite of the splendidly imaginative systems to which they have given rise, have been on the whole a hindrance

to the progress of philosophy, and ought now to be consciously thrust aside by those who wish to discover philosophical truth. Science, originally, was entangled in similar motives, and was thereby hindered in its advances. It is, I maintain, from science, rather than from ethics and religion, that philosophy should draw its inspiration.

But there are two different ways in which a philosophy may seek to base itself upon science. It may emphasize the most general *results* of science, and seek to give even greater generality and unity to these results. Or it may study the *methods* of science, and seek to apply these methods, with the necessary adaptations, to its own peculiar province. Much philosophy inspired by science has gone astray through preoccupation with the *results* momentarily supposed to have been achieved. It is not results, but *methods*, that can be transferred with profit from the sphere of the special sciences to the sphere of philosophy. What I wish to bring to your notice is the possibility and importance of applying to philosophical problems certain broad principles of method which have been found successful in the study of scientific questions.

The opposition between a philosophy guided by scientific method and a philosophy dominated by religious and ethical ideas may be illustrated by two notions which are very prevalent in the works of philosophers, namely the notion of *the universe*, and the notion of *good and evil*. A philosopher is expected to tell us something about the nature of the universe as a whole, and to give grounds for either optimism or pessimism. Both these expectations seem to me mistaken. I believe the conception of 'the universe' to be, as its etymology indicates, a mere relic of pre-

Copernican astronomy; and I believe the question of optimism and pessimism to be one which the philosopher will regard as outside his scope, except, possibly, to the extent of maintaining that it is insoluble.

In the days before Copernicus, the conception of the 'universe' was defensible on scientific grounds: the diurnal revolution of the heavenly bodies bound them together as all parts of one system, of which the earth was the centre. Round this apparent scientific fact, many human desires rallied: the wish to believe Man important in the scheme of things, the theoretical desire for a comprehensive understanding of the Whole, the hope that the course of nature might be guided by some sympathy with our wishes. In this way, an ethically inspired system of metaphysics grew up, whose anthropocentrism was apparently warranted by the geocentrism of astronomy. When Copernicus swept away the astronomical basis of this system of thought, it had grown so familiar, and had associated itself so intimately with men's aspirations, that it survived with scarcely diminished force—survived even Kant's 'Copernican revolution', and is still now the unconscious premiss of most metaphysical systems.

The oneness of the world is an almost undiscussed postulate of most metaphysics. 'Reality is not merely one and self-consistent, but is a system of reciprocally determinate parts'[1]—such a statement would pass almost unnoticed as a mere truism. Yet I believe that it embodies a failure to effect thoroughly the 'Copernican revolution', and that the apparent oneness of the world is merely the oneness of what is seen by a single spectator or apprehended by a single mind. The Critical Philosophy, although it intended to emphasize

[1] Bosanquet, *Logic*, ii, p. 211.

the subjective element in many apparent characteristics of the world, yet, by regarding the world in itself as unknowable, so concentrated attention upon the subjective representation that its subjectivity was soon forgotten. Having recognized the categories as the work of the mind, it was paralysed by its own recognition, and abandoned in despair the attempt to undo the work of subjective falsification. In part, no doubt, its despair was well founded, but not, I think, in any absolute or ultimate sense. Still less was it a ground for rejoicing, or for supposing that the nescience to which it ought to have given rise could be legitimately exchanged for a metaphysical dogmatism.

I.

As regards our present question, namely, the question of the unity of the world, the right method, as I think, has been indicated by William James.[1] "Let us now turn our backs upon ineffable or unintelligible ways of accounting for the world's oneness, and inquire whether, instead of being a principle, the 'oneness' affirmed may not merely be a name like 'substance', descriptive of the fact that certain *specific and verifiable connections* are found among the parts of the experiential flux. . . . We can easily conceive of things that shall have no connection whatever with each other. We may assume them to inhabit different times and spaces, as the dreams of different persons do even now. They may be so unlike and incommensurable, and so inert towards one another, as never to jostle or interfere. Even now there may actually be whole universes so disparate from ours that we who know ours have no means of perceiving that they exist. We

[1] *Some Problems of Philosophy*, p. 124.

conceive their diversity, however; and by that fact the whole lot of them form what is known in logic as 'a universe of discourse'. To form a universe of discourse argues, as this example shows, no further kind of connexion. The importance attached by certain monistic writers to the fact that any chaos may become a universe by being merely named, is to me incomprehensible." We are thus left with two kinds of unity in the experienced world; the one what we may call the epistemological unity due merely to the fact that my experienced world is what *one* experience selects from the sum total of existence; the other that tentative and partial unity exhibited in the prevalence of scientific laws in those portions of the world which science has hitherto mastered. Now a generalization based upon either of these kinds of unity would be fallacious. That the things which we experience have the common property of being experienced by us is a truism from which obviously nothing of importance can be deducible: it is obviously fallacious to draw from the fact that whatever we experience is experienced the conclusion that therefore everything must be experienced. The generalization of the second kind of unity, namely, that derived from scientific laws, would be equally fallacious, though the fallacy is a trifle less elementary. In order to explain it let us consider for a moment what is called the reign of law. People often speak as though it were a remarkable fact that the physical world is subject to invariable laws. In fact, however, it is not easy to see how such a world could fail to obey general laws. Taking any arbitrary set of points in space, there is a function of the time corresponding to these points, i.e. expressing the motion of a particle which traverses these points: this function may be regarded as a general law to which the behaviour

of such a particle is subject. Taking all such functions for all the particles in the universe, there will be theoretically some one formula embracing them all, and this formula may be regarded as the single and supreme law of the spatio-temporal world. Thus what is surprising in physics is not the existence of general laws, but their extreme simplicity. It is not the uniformity of nature that should surprise us, for, by sufficient analytic ingenuity, any conceivable course of nature might be shown to exhibit uniformity. What should surprise us is the fact that the uniformity is simple enough for us to be able to discover it. But it is just this characteristic of simplicity in the laws of nature hitherto discovered which it would be fallacious to generalize, for it is obvious that simplicity has been a part cause of their discovery, and can, therefore, give no ground for the supposition that other undiscovered laws are equally simple.

The fallacies to which these two kinds of unity have given rise suggest a caution as regards all use in philosophy of general *results* that science is supposed to have achieved. In the first place, in generalizing these results beyond past experience, it is necessary to examine very carefully whether there is not some reason making it more probable that these results should hold of all that has been experienced than that they should hold of things universally. The sum total of what is experienced by mankind is a selection from the sum total of what exists and any general character exhibited by this selection may be due to the manner of selecting rather than to the general character of that from which experience selects. In the second place, the most general results of science are the least certain and the most liable to be upset by subsequent research. In utilizing these results as the basis of a philosophy, we

sacrifice the most valuable and remarkable characteristic of scientific method, namely, that, although almost everything in science is found sooner or later to require some correction, yet this correction is almost always such as to leave untouched, or only slightly modified, the greater part of the results which have been deduced from the premiss subsequently discovered to be faulty. The prudent man of science acquires a certain instinct as to the kind of uses which may be made of present scientific beliefs without incurring the danger of complete and utter refutation from the modifications likely to be introduced by subsequent discoveries. Unfortunately the use of scientific generalizations of a sweeping kind as the basis of philosophy is just that kind of use which an instinct of scientific caution would avoid, since, as a rule, it would only lead to true results if the generalization upon which it is based stood in *no* need of correction.

We may illustrate these general considerations by means of two examples, namely, the conservation of energy and the principle of evolution.

(1) Let us begin with the conservation of energy, or, as Herbert Spencer used to call it, the persistence of force. He says:[1]

> 'Before taking a first step in the rational interpretation of phenomena, it is needful to recognize, not only the facts that Matter is indestructible and Motion continuous, but also the fact that Force persists. An attempt to ascertain the laws to which manifestations in general and in detail conform, would be absurd if the agency to which they are due could either come into existence or cease to exist. The succession of phenomena would in such case be altogether arbitrary; and Science, equally with Philosophy, would be impossible.'

[1] *First Principles*, Part II, beginning of chap. vi.

This paragraph illustrates the kind of way in which the philosopher is tempted to give an air of absoluteness and necessity to empirical generalizations, of which only the approximate truth in the regions hitherto investigated can be guaranteed by the unaided methods of science. It is very often said that the persistence of something or other is a necessary presupposition of all scientific investigation, and this presupposition is then thought to be exemplified in some quantity which physics declares to be constant. There are here, as it seems to me, three distinct errors. First, the detailed scientific investigation of nature does not *presuppose* any such general laws as its results are found to verify. Apart from particular observations, science need presuppose nothing except the general principles of logic, and these principles are not laws of nature, for they are merely hypothetical, and applied not only to the actual world but to whatever is *possible*. The second error consists in the identification of a constant quantity with a persistent entity. Energy is a certain function of a physical system, but is not a thing or substance persisting throughout the changes of the system. The same is true of mass, in spite of the fact that mass has often been defined as *quantity of matter*. The whole conception, of quantity, involving, as it does, numerical measurement based largely upon conventions, is far more artificial, far more an embodiment of mathematical convenience, than is commonly believed by those who philosophize on physics. Thus even if (which I cannot for a moment admit) the persistence of some entity were among the necessary postulates of science, it would be a sheer error to infer from this the constancy of any physical quantity, or the *a priori* necessity of any such constancy which may be empirically discovered. In

the third place, it has become more and more evident with the progress of physics that large generalizations, such as the conservation of energy or mass, are far from certain and are very likely only approximate. Mass, which used to be regarded as the most indubitable of physical quantities, is now very generally believed to vary according to velocity, and to be, in fact, a vector quantity which at a given moment is different in different directions. The detailed conclusions deduced from the supposed constancy of mass for such motions as used to be studied in physics will remain very nearly exact, and, therefore, over the field of the older investigations very little modification of the older results is required. But as soon as such a principle as the conservation of mass or of energy is erected into a universal *a priori* law, the slightest failure in absolute exactness is fatal, and the whole philosophic structure raised upon this foundation is necessarily ruined. The prudent philosopher, therefore, though he may with advantage study the methods of physics, will be very chary of basing anything upon what happen at the moment to be the most general results apparently obtained by those methods.

(2) The philosophy of evolution, which was to be our second example, illustrates the same tendency to hasty generalization, and also another sort, namely, the undue preoccupation with ethical notions. There are two kinds of evolutionist philosophy, of which both Hegel and Spencer represent the older and less radical kind, while Pragmatism and Bergson represent the more modern and revolutionary variety. But both these sorts of evolutionism have in common the emphasis on *progress*, that is, upon a continual change from the worse to the better or from the simpler to the more complex. It

would be unfair to attribute to Hegel any scientific motive or foundation, but all the other evolutionists, including Hegel's modern disciples, have derived their impetus very largely from the history of biological development. To a philosophy which derives a law of universal progress from this history there are two objections. First, that the history itself is concerned with a very small selection of facts confined to an infinitesimal fragment of space and time, and even on scientific grounds probably not an average sample of events in the world at large. For we know that decay as well as growth is a normal occurrence in the world. An extra-terrestrial philosopher, who had watched a single youth up to the age of twenty-one and had never come across any other human being, might conclude that it is the nature of human beings to grow continually taller and wiser in an indefinite progress towards perfection; and this generalization would be just as well founded as the generalization which evolutionists base upon the previous history of this planet. Apart, however, from this scientific objection to evolutionism, there is another, derived from the undue admixture of ethical notions in the very idea of progress from which evolutionism derives its charm. Organic life, we are told, has developed gradually from the protozoon to the philosopher, and this development, we are assured, is indubitably an advance. Unfortunately it is the philosopher, not the protozoon, who gives us this assurance, and we can have no security that the impartial outsider would agree with the philosopher's self-complacent assumption. This point has been illustrated by the philosopher Chuang Tzŭ in the following instructive anecdote:

'The Grand Augur, in his ceremonial robes,

approached the shambles and thus addressed the pigs: "How can you object to die? I shall fatten you for three months. I shall discipline myself for ten days and fast for three. I shall strew fine grass, and place you bodily upon a carved sacrificial dish. Does not this satisfy you?"

Then, speaking from the pigs' point of view, he continued: "It is better, perhaps, after all, to live on bran and escape the shambles. . . ."

"But then," added he, speaking from his own point of view, "to enjoy honour when alive one would readily die on a war-shield or in the headsman's basket."

So he rejected the pigs' point of view and adopted his own point of view. In what sense, then, was he different from the pigs?'

I much fear that the evolutionists too often resemble the Grand Augur and the pigs.

The ethical element which has been prominent in many of the most famous systems of philosophy is, in my opinion, one of the most serious obstacles to the victory of scientific method in the investigation of philosophical questions. Human ethical notions, as Chuang Tzŭ perceived, are essentially anthropocentric, and involve, when used in metaphysics, an attempt, however veiled, to legislate for the universe on the basis of the present desires of men. In this way they interfere with that receptivity to fact which is the essence of the scientific attitude towards the world. To regard ethical notions as a key to the understanding of the world is essentially pre-Copernican. It is to make man, with the hopes and ideals which he happens to have at the present moment, the centre of the universe and the interpreter of its supposed aims and purposes. Ethical metaphysics is fundamentally an attempt, however disguised, to give legislative force to our own wishes. This may, of course, be questioned, but I think that it is confirmed by a consideration of the way in which ethical notions arise.

Ethics is essentially a product of the gregarious instinct, that is to say, of the instinct to co-operate with those who are to form our own group against those who belong to other groups. Those who belong to our own group are good; those who belong to hostile groups are wicked. The ends which are pursued by our own group are desirable ends, the ends pursued by hostile groups are nefarious. The subjectivity of this situation is not apparent to the gregarious animal, which feels that the general principles of justice are on the side of its own herd. When the animal has arrived at the dignity of the metaphysician, it invents ethics as the embodiment of its belief in the justice of its own herd. So the Grand Augur invokes ethics as the justification of Augurs in their conflicts with pigs. But, it may be said, this view of ethics takes no account of such truly ethical notions as that of self-sacrifice. This, however, would be a mistake. The success of gregarious animals in the struggle for existence depends upon co-operation within the herd, and co-operation requires sacrifice, to some extent, of what would otherwise be the interest of the individual. Hence arises a conflict of desires and instincts, since both self-preservation and the preservation of the herd are biological ends to the individual. Ethics is in origin the art of recommending to others the sacrifices required for co-operation with oneself. Hence, by reflexion, it comes, through the operation of social justice, to recommend sacrifices by oneself, but all ethics, however refined, remains more or less subjective. Even vegetarians do not hesitate, for example, to save the life of a man in a fever, although in doing so they destroy the lives of many millions of microbes. The view of the world taken by the philosophy derived from ethical notions is thus never impartial and

therefore never fully scientific. As compared with science, it fails to achieve the imaginative liberation from self which is necessary to such understanding of the world as man can hope to achieve, and the philosophy which it inspires is always more or less parochial, more or less infected with the prejudices of a time and a place.

I do not deny the importance or value, within its own sphere, of the kind of philosophy which is inspired by ethical notions. The ethical work of Spinoza, for example, appears to me of the very highest significance, but what is valuable in such work is not any metaphysical theory as to the nature of the world to which it may give rise, nor indeed anything which can be proved or disproved by argument. What is valuable is the indication of some new way of feeling towards life and the world, some way of feeling by which our own existence can acquire more of the characteristics which we must deeply desire. The value of such work, however immeasurable it is, belongs with practice and not with theory. Such theoretic importance as it may possess is only in relation to human nature, not in relation to the world at large. The scientific philosophy, therefore, which aims only at understanding the world and not directly at any other improvement of human life, cannot take account of ethical notions without being turned aside from that submission to fact which is the essence of the scientific temper.

II.

If the notion of the universe and the notion of good and evil are extruded from scientific philosophy, it may be asked what specific problems remain for the philosopher as opposed to the man of science? It would be difficult to give a precise answer to this question, but

certain characteristics may be noted as distinguishing the province of philosophy from that of the special sciences.

In the first place a philosophical proposition must be general. It must not deal specially with things on the surface of the earth, or with the solar system, or with any other portion of space and time. It is this need of generality which has led to the belief that philosophy deals with the universe as a whole. I do not believe that this belief is justified, but I do believe that a philosophical proposition must be applicable to everything that exists or may exist. It might be supposed that this admission would be scarcely distinguishable from the view which I wish to reject. This, however, would be an error, and an important one. The traditional view would make the universe itself the subject of various predicates which could not be applied to any particular thing in the universe, and the ascription of such peculiar predicates to the universe would be the special business of philosophy. I maintain, on the contrary, that there are no propositions of which the 'universe' is the subject; in other words, that there is no such thing as the 'universe'. What I do maintain is that there are general propositions which may be asserted of each individual thing, such as the propositions of logic. This does not involve that all the things there are form a whole which could be regarded as another thing and be made the subject of predicates. It involves only the assertion that there are properties which belong to each separate thing, not that there are properties belonging to the whole of things collectively. The philosophy which I wish to advocate may be called logical atomism or absolute pluralism, because while maintaining that there are many things, it denies that there is a whole

composed of those things. We shall see, therefore, that philosophical propositions, instead of being concerned with the whole of things collectively, are concerned with all things distributively; and not only must they be concerned with all things, but they must be concerned with such properties of all things as do not depend upon the accidental nature of the things that there happen to be, but are true of any possible world, independently of such facts as can only be discovered by our senses.

This brings us to a second characteristic of philosophical propositions, namely that they must be *a priori*. A philosophical proposition must be such as can be neither proved nor disproved by empirical evidence. Too often we find in philosophical books arguments based upon the course of history, or the convolutions of the brain, or the eyes of shell-fish. Such special and accidental facts are irrelevant to philosophy, which must make only such assertions as would be equally true however the actual world were constituted.

We may sum up these two characteristics of philosophical propositions by saying that *philosophy is the science of the possible*. But this statement unexplained is liable to be misleading, since it may be thought that the possible is something other than the general, whereas in fact the two are indistinguishable.

Philosophy, if what has been said is correct, becomes indistinguishable from logic as that word has now come to be used. The study of logic consists, broadly speaking, of two not very sharply distinguished portions. On the one hand it is concerned with those general statements which can be made concerning everything without mentioning any one thing or predicate or relation, such for example as 'if x is a member of the class α and every member of α is a member of β, then x is a member of

the class β, whatever x, α, and β may be'. On the other hand, it is concerned with the analysis and enumeration of logical *forms*, i.e. with the kinds of propositions that may occur, with the various types of facts, and with the classification of the constituents of facts. In this way logic provides an inventory of possibilities, a repertory of abstractly tenable hypotheses.

It might be thought that such a study would be too vague and too general to be of any very great importance, and that, if its problems became at any point sufficiently definite, they would be merged in the problems of some special science. It appears, however, that this is not the case. In some problems, for example, the analysis of space and time, the nature of perception, or the theory of judgement, the discovery of the logical form of the facts involved is the hardest part of the work and the part whose performance has been most lacking hitherto. It is chiefly for want of the logical hypothesis that such problems have hitherto been treated in such an unsatisfactory manner, and have given rise to those contradictions or antinomies in which the enemies of reason among philosophers have at all times delighted.

By concentrating attention upon the investigation of logical forms, it becomes possible at last for philosophy to deal with its problems piecemeal, and to obtain, as the sciences do, such partial and probably not wholly correct results as subsequent investigation can utilize even while it supplements and improves them. Most philosophies hitherto have been constructed all in one block, in such a way that, if they were not wholly correct, they were wholly incorrect, and could not be used as a basis for further investigations. It is chiefly owing to this fact that philosophy, unlike science, has hitherto been unprogressive, because each original

philosopher has had to begin the work again from the beginning, without being able to accept anything from the work of his predecessors. A scientific philosophy such as I wish to recommend will be piecemeal and tentative like other sciences; above all, it will be able to invent hypotheses which, even if they are not wholly true, will yet remain fruitful after the necessary corrections have been made. This possibility of successive approximations to the truth is, more than anything else, the source of the triumphs of science, and to transfer this possibility to philosophy is to ensure a progress in method whose importance it would be almost impossible to exaggerate.

The essence of philosophy as thus conceived is analysis, not synthesis. To build up systems of the world, like Heine's German professor who knit together fragments of life and made an intelligible system out of them, is not, I believe, any more feasible than the discovery of the philosopher's stone. What is feasible is the understanding of general forms, and the division of traditional problems into a number of separate and less baffling questions. 'Divide and conquer' is the maxim of success here as elsewhere.

Let us illustrate these somewhat general maxims by examining their application to the philosophy of space, for it is only in application that the meaning or importance of a method can be understood. Suppose we are confronted with the problem of space as presented in Kant's Transcendental Aesthetic, and suppose we wish to discover what are the elements of the problem and what hope there is of obtaining a solution of them. It will soon appear that three entirely distinct problems, belonging to different studies, and requiring different methods for their solution, have been confusedly

combined in the supposed single problem with which Kant is concerned. There is a problem of logic, a problem of physics, and a problem of theory of knowledge. Of these three, the problem of logic can be solved exactly and perfectly; the problem of physics can probably be solved with as great a degree of certainty and as great an approach to exactness as can be hoped in an empirical region; the problem of epistemology, however, remains very obscure and very difficult to deal with. Let us see how these three problems arise.

(1) The logical problem has arisen through the suggestions of non-Euclidean geometry. Given a body of geometrical propositions, it is not difficult to find a minimum statement of the axioms from which this body of propositions can be deduced. It is also not difficult, by dropping or altering some of these axioms, to obtain a more general or a different geometry, having, from the point of view of pure mathematics, the same logical coherency and the same title to respect as the more familiar Euclidean geometry. The Euclidean geometry itself is true perhaps of actual space (though this is doubtful), but certainly of an infinite number of purely arithmetical systems, each of which, from the point of view of abstract logic, has an equal and indefeasible right to be called a Euclidean space. Thus space as an object of logical or mathematical study loses its uniqueness; not only are there many kinds of spaces, but there are an infinity of examples of each kind, though it is difficult to find any kind of which the space of physics may be an example, and it is impossible to find any kind of which the space of physics is certainly an example. As an illustration of one possible logical system of geometry we may consider all relations of three terms which are analogous in certain formal

respects to the relation 'between' as it appears to be in actual space. A space is then defined by means of one such three-term relation. The points of the space are all the terms which have this relation to something or other, and their order in the space in question is determined by this relation. The points of one space are necessarily also points of other spaces, since there are necessarily other three-term relations having those same points for their field. The space in fact is not determined by the class of its points, but by the ordering three-term relation. When enough abstract logical properties of such relations have been enumerated to determine the resulting kind of geometry, say, for example, Euclidean geometry, it becomes unnecessary for the pure geometer in his abstract capacity to distinguish between the various relations which have all these properties. He considers the whole class of such relations, not any single one among them. Thus in studying a given kind of geometry the pure mathematician is studying a certain class of relations defined by means of certain abstract logical properties which take the place of what used to be called axioms. The nature of geometrical *reasoning* therefore is purely deductive and purely logical; if any special epistemological peculiarities are to be found in geometry, it must not be in the reasoning, but in our knowledge concerning the axioms in some given space.

(2) The physical problem of space is both more interesting and more difficult than the logical problem. The physical problem may be stated as follows:—to find in the physical world, or to construct from physical materials, a space of one of the kinds enumerated by the logical treatment of geometry. This problem derives its difficulty from the attempt to accommodate to the

roughness and vagueness of the real world some system possessing the logical clearness and exactitude of pure mathematics. That this can be done with a certain degree of approximation is fairly evident. If I see three people *A*, *B*, and *C* sitting in a row, I become aware of the fact which may be expressed by saying that *B* is between *A* and *C* rather than that *A* is between *B* and *C*, or *C* is between *A* and *B*. This relation of 'between' which is thus perceived to hold has some of the abstract logical properties of those three-term relations which, we saw, give rise to a geometry, but its properties fail to be exact, and are not, as empirically given, amenable to the kind of treatment at which geometry aims. In abstract geometry we deal with points, straight lines, and planes; but the three people *A*, *B*, and *C* whom I see sitting in a row are not exactly points, nor is the row exactly a straight line. Nevertheless physics, which formally assumes a space containing points, straight lines, and planes, is found empirically to give results applicable to the sensible world. It must therefore be possible to find an interpretation of the points, straight lines, and planes of physics in terms of physical data, or at any rate in terms of data together with such hypothetical additions as seem least open to question. Since all data suffer from a lack of mathematical precision through being of a certain size and somewhat vague in outline, it is plain that if such a notion as that of a point is to find any application to empirical material, the point must be neither a datum nor a hypothetical addition to data, but a *construction* by means of data with their hypothetical additions. It is obvious that any hypothetical filling out of data is less dubious and unsatisfactory when the additions are closely analogous to data than when they are of a radically different sort. To

assume, for example, that objects which we see continue, after we have turned away our eyes, to be more or less analogous to what they were while we were looking, is a less violent assumption than to assume that such objects are composed of an infinite number of mathematical points. Hence in the physical study of the geometry of physical space, points must not be assumed *ab initio* as they are in the logical treatment of geometry, but must be constructed as systems composed of data and hypothetical analogues of data. We are thus led naturally to define a physical point as a certain class of those objects which are the ultimate constituents of the physical world. It will be the class of all those objects which, as one would naturally say, *contain* the points. To secure a definition giving this result, without previously assuming that physical objects are composed of points, is an agreeable problem in mathematical logic. The solution of this problem and the perception of its importance are due to my friend Dr. Whitehead. The oddity of regarding a point as a class of physical entities wears off with familiarity, and ought in any case not to be felt by those who maintain, as practically every one does, that points are mathematical fictions. The word 'fiction' is used glibly in such connexions by many men who seem not to feel the necessity of explaining how it can come about that a fiction can be so useful in the study of the actual world as the points of mathematical physics have been found to be. By our definition, which regards a point as a class of physical objects, it is explained both how the use of points can lead to important physical results, and how we can nevertheless avoid the assumption that points are themselves entities in the physical world.

Many of the mathematically convenient properties of abstract logical spaces cannot be either known to belong

or known not to belong to the space of physics. Such are all the properties connected with continuity. For to know that actual space has these properties would require an infinite exactness of sense-perception. If actual space is continuous, there are nevertheless many possible non-continuous spaces which will be empirically indistinguishable from it; and, conversely, actual space may be non-continuous and yet empirically indistinguishable from a possible continuous space. Continuity, therefore, though obtainable in the *a priori* region of arithmetic, is not with certainty obtainable in the space or time of the physical world: whether these are continuous or not would seem to be a question not only unanswered but for ever unanswerable. From the point of view of philosophy, however, the discovery that a question is unanswerable is as complete an answer as any that could possibly be obtained. And from the point of view of physics, where no empirical means of distinction can be found, there can be no empirical objection to the mathematically simplest assumption, which is that of continuity.

The subject of the physical theory of space is a very large one, hitherto little explored. It is associated with a similar theory of time, and both have been forced upon the attention of philosophically minded physicists by the discussions which have raged concerning the theory of relativity.

(3) The problem with which Kant is concerned in the Transcendental Aesthetic is primarily the epistemological problem: 'How do we come to have knowledge of geometry *a priori*?' By the distinction between the logical and physical problems of geometry, the bearing and scope of this question are greatly altered. Our knowledge of pure geometry is *a priori* but is purely

logical. Our knowledge of physical geometry is synthetic, but is not *a priori*. Our knowledge of pure geometry is hypothetical, and does not enable us to assert, for example, that the axiom of parallels is true in the physical world. Our knowledge of physical geometry, while it does enable us to assert that this axiom is approximately verified, does not, owing to the inevitable inexactitude of observation, enable us to assert that it is verified *exactly*. Thus, with the separation which we have made between pure geometry and the geometry of physics, the Kantian problem collapses. To the question, 'How is synthetic *a priori* knowledge possible?' we can now reply, 'It is not possible,' at any rate if 'synthetic' means 'not deducible from logic alone'. Our knowledge of geometry, like the rest of our knowledge, is derived partly from logic, partly from sense, and the peculiar position which in Kant's day geometry appeared to occupy is seen now to be a delusion. There are still some philosophers, it is true, who maintain that our knowledge that the axiom of parallels, for example, is true of actual space, is not to be accounted for empirically, but is as Kant maintained derived from an *a priori* intuition. This position is not logically refutable, but I think it loses all plausibility as soon as we realize how complicated and derivative is the notion of physical space. As we have seen, the application of geometry to the physical world in no way demands that there should really be points and straight lines among physical entities. The principle of economy, therefore, demands that we should abstain from assuming the existence of points and straight lines. As soon, however, as we accept the view that points and straight lines are complicated constructions by means of classes of physical entities, the hypothesis that we have an

a priori intuition enabling us to know what happens to straight lines when they are produced indefinitely becomes extremely strained and harsh; nor do I think that such an hypothesis would ever have arisen in the mind of a philosopher who had grasped the nature of physical space. Kant, under the influence of Newton, adopted, though with some vacillation, the hypothesis of absolute space, and this hypothesis, though logically unobjectionable, is removed by Occam's razor, since absolute space is an unnecessary entity in the explanation of the physical world. Although, therefore, we cannot refute the Kantian theory of an *a priori* intuition, we can remove its grounds one by one through an analysis of the problem. Thus here, as in many other philosophical questions, the analytic method, while not capable of arriving at a demonstrative result, is nevertheless capable of showing that all the positive grounds in favour of a certain theory are fallacious and that a less unnatural theory is capable of accounting for the facts.

Another question by which the capacity of the analytic method can be shown is the question of realism. Both those who advocate and those who combat realism seem to me to be far from clear as to the nature of the problem which they are discussing. If we ask: 'Are our objects of perception *real* and are they *independent* of the percipient?' it must be supposed that we attach some meaning to the words 'real' and 'independent', and yet, if either side in the controversy of realism is asked to define these two words, their answer is pretty sure to embody confusions such as logical analysis will reveal.

Let us begin with the word 'real'. There certainly are objects of perception, and therefore, if the question whether these objects are real is to be a substantial

question, there must be in the world too sorts of objects, namely, the real and the unreal, and yet the unreal is supposed to be essentially what there is not. The question what properties must belong to an object in order to make it real is one to which an adequate answer is seldom if ever forthcoming. There is of course the Hegelian answer, that the real is the self-consistent and that nothing is self-consistent except the Whole, but this answer, true or false, is not relevant in our present discussion, which moves on a lower plane and is concerned with the status of objects of perception among other objects of equal fragmentariness. Objects of perception are contrasted, in the discussions concerning realism, rather with psychical states on the one hand and matter on the other hand than with the all-inclusive whole of things. The question we have therefore to consider is the question as to what can be meant by assigning 'reality' to some but not all of the entities that make up the world. Two elements, I think, make up what is felt rather than thought when the word 'reality' is used in this sense. A thing is real if it persists at times when it is not perceived; or again, a thing is real when it is correlated with other things in a way which experience has led us to expect. It will be seen that reality in either of these senses is by no means necessary to a thing, and that in fact there might be a whole world in which nothing was real in either of these senses. It might turn out that the objects of perception failed of reality in one or both of these respects, without its being in any way deducible that they are not parts of the external world with which physics deals. Similar remarks will apply to the word 'independent'. Most of the associations of this word are bound up with ideas as to causation which it is not now possible to

maintain. A is independent of B when B is not an indispensable part of the *cause* of A. But when it is recognized that causation is nothing more than correlation, and that there are correlations of simultaneity as well as of succession, it becomes evident that there is no uniqueness in a series of causal antecedents of a given event, but that, at any point where there is a correlation of simultaneity, we can pass from one line of antecedents to another in order to obtain a new series of causal antecedents. It will be necessary to specify the causal law according to which the antecedents are to be considered. I received a letter the other day from a correspondent who had been puzzled by various philosophical questions. After enumerating them he says: 'These questions led me from Bonn to Strassburg, where I found Professor Simmel.' Now, it would be absurd to deny that these questions caused his body to move from Bonn to Strassburg, and yet it must be supposed that a set of purely mechanical antecedents could also be found which would account for this transfer of matter from one place to another. Owing to this plurality of causal series antecedent to a given event, the notion of *the* cause becomes indefinite, and the question of independence becomes correspondingly ambiguous. Thus, instead of asking simply whether A is independent of B, we ought to ask whether there is a series determined by such and such causal laws leading from B to A. This point is important in connexion with the particular question of objects of perception. It may be that no objects quite like those which we perceive ever exist unperceived; in this case there will be a causal law according to which objects of perception are not independent of being perceived. But even if this be the case, it may nevertheless also happen

that there are purely physical causal laws determining the occurrence of objects which are perceived by means of other objects which perhaps are not perceived. In that case, in regard to such causal laws objects of perception will be independent of being perceived. Thus the question whether objects of perception are independent of being perceived is, as it stands, indeterminate, and the answer will be yes or no according to the method adopted of making it determinate. I believe that this confusion has borne a very large part in prolonging the controversies on this subject, which might well have seemed capable of remaining for ever undecided. The view which I should wish to advocate is that objects of perception do not persist unchanged at times when they are not perceived, although probably objects more or less resembling them do exist at such times; that objects of perception are part, and the only empirically knowable part, of the actual subject-matter of physics, and are themselves properly to be called physical; that purely physical laws exist determining the character and duration of objects of perception without any reference to the fact that they are perceived; and that in the establishment of such laws the propositions of physics do not presuppose any propositions of psychology or even the existence of mind. I do not know whether realists would recognize such a view as realism. All that I should claim for it is, that it avoids difficulties which seem to me to beset both realism and idealism as hitherto advocated, and that it avoids the appeal which they have made to ideas which logical analysis shows to be ambiguous. A further defence and elaboration of the positions which I advocate, but for which time is lacking now, will be found indicated in my book on *Our Knowledge of the External World*.[1]

[1] Open Court Company, 1914.

The adoption of scientific method in philosophy, if I am not mistaken, compels us to abandon the hope of solving many of the more ambitious and humanly interesting problems of traditional philosophy. Some of these it relegates, though with little expectation of a successful solution, to special sciences, others it shows to be such as our capacities are essentially incapable of solving. But there remain a large number of the recognized problems of philosophy in regard to which the method advocated gives all those advantages of division into distinct questions, of tentative, partial, and progressive advance, and of appeal to principles with which, independently of temperament, all competent students must agree. The failure of philosophy hitherto has been due in the main to haste and ambition: patience and modesty, here as in other sciences, will open the road to solid and durable progress.

BIOLOGICAL FACT
AND THE
STRUCTURE OF SOCIETY

THE HERBERT SPENCER LECTURE

DELIVERED AT THE EXAMINATION SCHOOLS
ON WEDNESDAY, FEBRUARY 28, 1912

BY

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M CM XII

BIOLOGICAL FACT AND THE STRUCTURE OF SOCIETY

THERE are signs that the civilized world is at length awakening to the fact that the knowledge needed for the right direction of social progress must be gained by biological observation and experiment. Such a turn in public opinion would, we may be sure, have been viewed by Herbert Spencer with exceptional interest and approval. The truth, so obvious to the naturalist, that man is an animal, subject to the same physical laws of development as other animals, is a doctrine he constantly expounded, and perhaps his teaching did more than that of any other philosopher towards helping men to see themselves as they really are, stripped of the sanctity with which superstition and ignorance have through all ages invested the human species.

Spencer not only contributed that great service, but I suppose that no one ever looked forward with serener confidence or a fuller optimism to the consequences which follow upon a recognition of these natural facts, to the possibility of a further evolution of our species, and to the certainty that by his own action the destiny of man may be controlled. It is natural therefore that in a lecture founded to commemorate his work we should examine the possibilities of biological discovery as applied to the constitution and future of human society.

Many causes have combined to give prominence at this moment to the biological aspects of Sociology. There exists a general perception on the part of the more intelligent that the present condition of the social

structure in civilized states is one of extreme instability. The apprehension that changes of exceptional magnitude are impending is widely spread. In addition to these indefinite sensations of uneasiness, the minds of observant persons are becoming keenly alive to the fact that the unexampled changes in the conditions of human life, made possible by the applications of science, are likely to result in an alteration of the composition of the population. Owing to the control which civilized communities have acquired over the forces of nature the average human life has been materially lengthened, and we need no evidence beyond that of ordinary experience to show that especially have the lives of those who are defective in mind or body been prolonged by application of these new powers on their behalf.

A general acquaintance with the idea of Evolution, in outline at least, has become universal. We are all habituated to the notion that the form of a society, like that of an individual, is a consequence of an evolutionary process. To that process experimental interference on an enormous scale is being applied, and it is inevitable that the community at large should be asking, not without anxiety, how far the outcome of these interferences with what have usually been regarded as natural forces will bring good or evil to the societies which attempt them. Within the last few years, moreover, mankind has suddenly begun to realize what heredity means. The deliberate interferences hitherto contemplated by economists have related to the distribution of wealth and opportunities of many kinds, the regulation of supply and demand, the creation or abolition of divers political institutions, and other measures of similar character. Though the effects of these devices are commonly described as profound, such measures are indirect, and

to the mind of the naturalist most of them are essentially superficial. Every legislative encouragement given to one class and every repression of another has an effect on the future of the race. Exerted over long periods of time, these interferences must indeed influence the composition of a population; but with knowledge of the full meaning of the physiological process of heredity we perceive that man has it in his power to operate upon his species in a much more drastic way. In Spencer's time and long before, this fact was obvious to all who reflected on the matter. He himself in many passages alludes to these possibilities. In 1873, for example, he wrote:[1]

'If any one denies that children bear likenesses to their progenitors in character and capacity—if he holds that men whose parents and grandparents were habitual criminals, have tendencies as good as those of men whose parents and grandparents were industrious and upright, he may consistently hold that it matters not from what families in a society the successive generations descend. He may think it just as well if the most active, and capable, and prudent, and conscientious people die without issue; while many children are left by the reckless and dishonest. But whoever does not espouse so insane a proposition must admit that social arrangements which retard the multiplication of the mentally-best, and facilitate the multiplication of the mentally-worst, must be extremely injurious.'

In the period when these words were written practically nothing was known of heredity. Naturalists knew that in general offspring resemble their parents more or less, and that by selection for an indefinite number of generations types could be fixed so as to breed approximately true. That there was a vast province of exact

[1] *The Study of Sociology*, ed. 1908, p. 343.

and readily ascertainable knowledge, fraught with immeasurable practical consequence to mankind, hidden behind the word *heredity* had occurred to scarcely a single mind.

Many were perfectly aware of the importance of heredity. All upholders of evolutionary doctrines, both those who preceded Darwin and those who followed him, were familiar with the fact that change of type came about through the inheritance of modification. In many admirable and striking works the late Francis Galton had endeavoured to direct attention to the practical significance of heredity. He had shown also that the descent of characters could be partially expressed in a system, which, though erroneous in fundamental conception, still gives an approximately correct representation of several of the phenomena.

But the discovery of Mendelian analysis, though as yet imperfectly developed, opens up a new world of physiology. Expressed in the briefest possible way the essence of the Mendelian principle is not difficult to grasp. It may be conveyed in the statement that organisms may be regarded as composed to a great extent of separate factors, by virtue of which they possess their various characters or attributes. These factors are detachable, and may be recombined in various ways. It thus becomes possible to institute a factorial analysis of an individual.

How far such analysis can be carried we do not yet know, but we have the certainty that it extends far, and ample indications that we should probably be right in supposing that it covers most of the features, whether of mind or body, which distinguish the various members of a mixed population like that of which we form a part. From such a representation we pass to the obvious con-

clusion that an individual parent is unable to pass on to offspring a factor which he or she does not possess.

Just as various features or characteristics may be due to the *presence* of the corresponding factor, so we have to recognize that other attributes appear only in the *absence* of certain factors. Moreover, since those individuals only which are possessed of the factors can pass them on to their offspring, so the offspring of those that are destitute of these elements do not acquire them in subsequent generations but continue to perpetuate the type which exists by reason of the deficiency. You will readily understand that in practice the analysis and detection of these factors is a difficult matter. The difficulty arises especially from the very important fact that some of the ingredient-factors have the property of *inhibiting* or masking the effects of other factors, and that many features of bodily organization are due to the *combination* and interaction of two or more ingredients, which alone might be present without producing any perceptible sign of their presence. Thus one flower may be white, because it is lacking in the element which produces colour; but another may be white though it has everything needed to give it colour, because it has in addition an element which suppresses the pigmentation. Again, colour in some plants is due to one factor, but in others it is developed only when two independent complementary factors are present, and either of these may be present alone in a flower which is perfectly white.

Such rules have been demonstrated in operation for an immense diversity of characteristics in both animals and plants in great variety. It should be explicitly stated, however, that in the case of the ordinary attributes of normal men we have as yet unimpeachable evidence

of the manifestation of this system of descent for one set of characters only, namely the colour of the eyes.

There is nevertheless no reasonable doubt that the extension to the normal attributes of man is one which we are well entitled to make. For with the doubtful exception of certain features of quantity, size, and number, no characters of animals and plants which have been made subject to adequate experimental tests have hitherto proved incapable of being represented as governed by such a system. Moreover, if the evidence as to normal characteristics of man is defective—which in view of the extreme difficulty of applying accurate research to normal humanity is scarcely surprising—there is in respect of numerous human abnormalities abundant evidence that a factorial system of descent is followed.

To appreciate the full significance of these things one must have practical experience of breeding. I wish it were in my power to bring to the minds of such an audience as this some part of the emotion which the contemplation of this display of order can excite. Imagine a greenhouse stage full of a miscellaneous collection of varieties of some plant, such as the Chinese Primula, with all their varied shapes of leaves and flowers. Their colours also seem at first sight to range through an endless series of tints of magenta, crimson, pink, and blue. By appropriate treatment we have it in our power to determine that in three generations at the most the offspring of these plants, the generation in fact which will then replace them and represent them, shall be entirely of one type only, or of two types, or three types in any required proportion. By choosing which parents shall leave offspring we can decide how the species shall be represented on our stages with a certainty almost as great as if the selection were made from plants

already grown. And similarly for fowls and many other forms of life. Write *Man* for Primula or fowl, and the stage of the world for that of the greenhouse, and I believe that with a few generations of experimental breeding we should acquire the power similarly to determine how the varieties of men should be represented in the generations that succeed.

At a cattle-show I look at the splendid animals in their pens, ranged breed by breed, and I look at the farmers and the sight-seers passing by them in procession. They too are of manifold types, men from all parts of the country, often showing the characteristics of their race plain and easy to recognize—big men, little men, men who fill out or 'mature' early, as they say in the meat-market—spare men, that the farmers would call 'bad doers', tame men, vicious men, sharp and dull, dark and fair—shepherds, stock-men, grooms, butchers, and sales-men. Could they too be arranged breed by breed in pens? A few most certainly could. (We might make a pen of shepherds and we should not often put in a groom by mistake.) Why could not all be sorted into breeds? The answer is obvious: because they are the offspring of matings made almost at random—and for no more recondite reason.

Many are disposed to imagine that the conditions of life play a great part in producing the diversity of such a mixed assemblage, but the more we learn of biological fact the less do we find much evidential ground for that opinion. The conditions of life provide opportunity for the development of characters, but they cannot increase the original endowment. If the right opportunity be withheld the characteristic does not appear. If the stout man had been starved from his birth, obviously his disposition to stoutness might have remained unknown;

but the spare man, like the razor-back pigs of the Southern States, will not fatten though he take five meals a day. And so for qualities that may be regarded as more subtle. A muscat grape will produce its aromatic flavour if it have sun and a suitable soil,—the pretentious Gros Colmar, with its fruits half as large again, is not worth eating, though it be fostered with all the gardener's skill. These qualities are, as we say, *genetic*, given to the creature at its birth, brought into it on fertilization by one, or by the other, or by both of the cells which united to produce it. That the conclusions to which experimental studies of animals and plants have led us apply also on the whole to the descent of human faculty can be doubted by no one who has studied the evidence.

If any one is not already convinced he should refer to the accumulated proofs which Galton so successfully collected, especially in *Hereditary Genius*. Let him study any biographical records of human achievement or conduct—such as a dictionary of painters or of musicians—and observe the perpetual recurrence of the same names in groups of two, three, or more; or the geographical distribution of illegitimacy, showing as it does the maintenance of 'local custom' and morals under divers conditions of occupation, soil, and climate; or the pedigrees collected in medical literature showing the descent of disease; or if he look no further than the distribution of qualities among the families known to himself he will be forced to the admission that, though the circumstances among which a man is born or thrust have some influence in the development and direction of his powers, yet the total contribution which circumstance makes to achievement is of that subordinate kind which is adequately described by the word 'opportunity'.

Men do not gather grapes of thorns or figs of thistles;

and what is so clear for the budding branches of the plant would be no less obviously true of the branching generations of our species, were it not for the fact that we each of us come from the union of *two* cells derived from two parents. The fact that we arise by this sexual process throws, however, but a thin veil of obscurity over the laws of descent, and it is interesting to notice that if only human or any other pedigree-tables had been arranged to be read *downwards instead of upwards*, the essential fact of Mendelian segregation must have been long ago discovered in regard to many characteristics. Genealogists have been accustomed to make a table of descent as a fan, with its apex in the individual whose origin they wish to display and its base widening as far as possible into the ancestry, the parental stock of each ancestor being represented by a pair. But to show how a character really descends we require the table constructed with its apex in one original individual who possessed the character, and from that apex to exhibit the devolution of that character among the diverging branches of his posterity. As the usual purpose of the genealogist has been to contribute either to political history or to family pride, rather than to natural knowledge, his mind has consequently been set on a demonstration rather of the origin and antiquity of his hero's qualities than of their distribution or absence among the collaterals.

I do not propose on this occasion to adduce facts in support of the general proposition that human genetic physiology follows in the main systems similar to those discovered in animals, but rather, assuming that this truth is admitted, to examine some phenomena of social physiology as they appear in the light of this knowledge.

May I clear myself at once of a possible misunderstanding? You will think, perhaps, that I am about to advocate interference by the State, or by public opinion, with the ordinary practices and habits of our society. There may be some who think that the English would be happier if their marriages were arranged at Westminster instead of, as hitherto, in Heaven. I am not of that opinion, nor can I suppose that the constructive proposals even of the less-advanced Eugenists would be seriously supported by any one who realized how slender is our present knowledge of the details of the genetic processes in their application to man. Before science can claim to have any positive guidance to offer, numbers of untouched problems must be solved. We need first some outline of an analysis of human characters, to know which are due to the presence of positive factors and which are due to their absence; how and in respect of what qualities the still mysterious phenomenon of sex causes departures from the simpler rules of descent, and many other data which will occur readily enough to those who are familiar with these inquiries. It is almost certain, for instance, that some qualities are transmitted differently according as they are possessed by the mother or by the father, and it is by no means improbable that various forms of conspicuous talent are among their number. It should be borne in mind that we do not yet know even which females among mankind correspond to which males. In man sexual differentiation is generally strongly marked. The case is almost like that of poultry. If a breeder ignorant of the breeds of poultry were asked to sort a miscellaneous assemblage of cocks and hens into pairs according to breed, he would often be quite at a loss to know what a given male type looked like when represented in a hen, and conversely. He would thus

make many mistakes even when dealing with pure breeds; and in man, as individuals pure-bred in any respect are very rare, the operation would be far more difficult. For these and other reasons I am entirely opposed to the views of those who would subsidize the families of parents passed as unexceptionable. Galton, I know, contemplated some such possibility; but if we picture to ourselves the kind of persons who would infallibly be chosen as examples of 'civic worth'—the term lately used to denote their virtues—the prospect is not very attractive. We need not for the present fear any scarcity of that class, and I think we may be content to postpone schemes for their multiplication.

As regards practical interference there is nevertheless one perfectly clear line of action which we may be agreed to take—the segregation of the hopelessly unfit. I need not argue this point. When it is realized that two parents, both of gravely defective or feeble mind, in the usual acceptance of that term, *do not have any normal children at all*, save perhaps in some very rare cases, and that the offspring of even one such parent mated to a normal generally contain a proportion of defectives,[1] no one can doubt that the right and most humane policy is to restrain them from breeding, and I suppose the principle of the Act now before Parliament for the institution of such a policy will have general approval. Under our present system the State exerts

[1] From such pedigrees as I have seen I should nevertheless hesitate to describe feeble-mindedness as a simple Mendelian recessive. It is possibly due to an absence of some factor or factors; but there is strong evidence that the usual result of a mating between normal and feeble-minded parents is a proportion of feeble-minded children, and it is difficult to suppose that most ostensibly normal persons are heterozygous in this respect. See especially H. H. Goddard, *Amer. Breeder's Magazine*, 1910, i. 172.

all the powers which science has developed for the preservation of such persons from their birth, most of whom would otherwise perish early. Brought to maturity their destiny is not difficult to imagine. However ignorant we may be as to the several ingredients which are required to compose a stable society, or of the proportions in which they are severally desirable, we are safe in preventing these creatures from reproducing themselves. Some of the more advanced of the American States are already going further, and even such a representative of older ideas as the State of New Jersey is, I am informed, introducing the practice of sterilizing criminals of special classes. That appears to me the very utmost length to which it is safe to extend legislative interference of this kind, until social physiology has been much more fully explored.

Beyond that if there is authority to go, it is not drawn from genetic science. If a person who is born with cataract, or develops cataract very early in childhood, has children, it is almost certain that half those children will inherit the cataract, with varying degrees of blindness. The prospect is more or less the same for several other defects. Nevertheless, though from these causes many remain grievous burdens to their families, or to the public funds, and though they could probably be eliminated after a few generations without difficulty by legislative interference, that would be a very dangerous course. They are not necessarily useless persons, nor are their own lives necessarily miserable. There are many healthy and active types which are a far greater nuisance to their neighbours and reproduce themselves with equal exactitude. Possibly, on a ballot, few of us would be encouraged to perpetuate our likenesses! We all have grave defects, not least those

who contribute much to the happiness of the world. The monogamous pigeons sitting on the barn roof perhaps are scandalized at the polygamy of the fowls in the yard. Such decadence, they hold, is disgusting and should be stopped. The fowls no doubt would reply that they may be polygamous and even polyandrous, but as for decadence, they at least don't limit their families to two. Such degeneracy is race-suicide and they think it should be punished. And so the debate might continue.

Seriously, let us remember that a polymorphic and mongrel population like ours descends from many tributary streams. We are made of fragments of divers races, all in their degree contributing their special aptitudes, their special deficiencies, their particular virtues and vices, and their multifarious notions of right and wrong. Many of us have, for instance, the monogamous instinct as strong as pigeons, and many of both sexes have it no more than fowls. Why should some be ambitious to make all think or act alike? It is much better that we should be of many sorts, saints, nondescripts, and sinners. Posterity is likely to discover that to eliminate sinners there is only one way—that which St. Paul pointed to us when he wrote that 'where no law is, there is no transgression'. Science knows nothing of sin save by its evil consequence. In all reverence she inverts the ancient saying and proclaims that the sting of Sin is Death. It is not the tyrannical and capricious interference of a half-informed majority which can safely mould or purify a population, but rather that simplification of instinct for which we ever hope, which fuller knowledge alone can make possible. As science strengthens our hold on nature, more and more will man be able to annul the evil consequence of sin. Little by little

the law will lapse into oblivion, and sins which it created will be sins no more.

The great and noble work which genetic science can do for humanity at the present time is to bring men to take more true, more simple, and, if so inexact a word can be used intelligibly, more natural views of themselves and of each other. With fuller knowledge of the physiology of races, and of the intimate relation between the physiological composition of the individual and his vital possibilities, all the problems of social organization show new aspects, and the vision is cleared of the fancies with which subjective ingenuity has overlaid the facts. How hard it is to realize the polymorphism of man! Think of the varieties which the word denotes, merely in its application to one small society such as ours, and of the natural, genetic distinctions which differentiate us into types and strains—acrobats, actors, artists, clergy, farmers, labourers, lawyers, mechanics, musicians, poets, sailors, men of science, servants, soldiers, and tradesmen. Think of the diversity of their experience of life. How few of these could have changed parts with each other. Many of these types are, even in present conditions, almost differentiated into distinct strains. In no wild species, not even among the ants, so often quoted, do we find any polymorphism approaching to this. I never cease to marvel that the more divergent castes of civilized humanity are capable of interbreeding and of producing fertile offspring from their crosses. Nothing but this paradoxical fact prevents us from regarding many classes even of Englishmen as distinct species in the full sense of the term. In a strident passage the acute Cobbett long ago expanded this conclusion:

'I am quite satisfied, that there are as many *sorts* of men as there are of dogs. . . . It cannot be *education* alone that makes the amazing difference we see. Besides, we see men of the very same rank and riches and education differing as widely as the pointer does from the pug. The name, *man*, is common to all the sorts, and hence arises very great mischief. What confusion must there be in rural affairs, if there were no names whereby to distinguish hounds, greyhounds, pointers, spaniels, terriers, and sheep-dogs from each other! And what pretty work, if, without regard to the *sorts* of dogs, men were to attempt to *employ them*! Yet this is done in the case of *men*! A man is always a *man*; and without the least regard as to the sort, they are promiscuously placed in all kinds of situations. . . . What would be said of the 'Squire who should take a fox-hound out to find partridges for him to shoot at? Yet would this be *more* absurd than to set a man to law-making who was manifestly formed for the express purpose of sweeping the streets or digging out sewers?'[1]

The problem which confronts the political philosopher is to find a system by which these differentiated elements may combine together to form a co-ordinated community, while each element remains substantially contented with its lot. To discuss this mighty problem in its full scope I have neither qualification nor desire. All that I can venture to contribute are some reflections which must come often to the minds of naturalists who contemplate the facts. They may be familiar enough to those who engage in the study of human affairs, but I have noticed that among those natural divisions between the sorts of men to which I just referred there are few more marked than that which usually separates students of natural knowledge from those who care nothing for it; and with rare exception you will find that publicists of the various denominations are almost always in this latter

[1] W. Cobbett, *Rural Rides*, ed. 1853, p. 291.

group.[1] Legislators, nevertheless, whether they know it or not, are engaged in a practical experiment with living things of a peculiarly intricate kind.

Many features of social phenomena evidently wear to the legislator aspects entirely different from those which they present to us. Lately, for example, the nation has been debating the virtual abolition of the hereditary Chamber—obviously a problem to the solution of which biological data are essential. I did not see in the public utterance of any statesman an allusion even to this aspect of the matter. Yet such data are neither very difficult to collect nor to interpret.

Let us think of the criminal law and consider how a system can satisfy the legislator which to the naturalist is stupid and infamously cruel. Just now I spoke of the polymorphism of mankind. No one trained in biology is ignorant of that phenomenon. True we realize it now as we never did before the study of heredity had developed, and I doubt not that before many years are past genetic research will have successfully represented the varying compositions of many at least of the more aberrant types of men by irrefutable analysis. If we have not yet these exact expressions, none of us doubt they can be found. Yet 'in the sight of the law', as the phrase goes, all men are equal! Are they equal

[1] Mr. Canning did not learn till late in life that tadpoles turn into frogs, and thought that a schoolboy who gave him that information was fooling him. Mr. Gladstone believed that twenty-eight was the normal total for the human teeth. Portentous ignorance of this kind is common among historians and legislators. In itself perhaps a trifle, it is a symptom of detachment from the actual world so complete as to disqualify a man from safely exercising high functions of statesmanship, demanding, as they must, a discernment which can only come from wide knowledge of natural fact.

in the sight of any one less blind than Justice? We do not find them equal in the out-patient room, in the school, at the recruiting dépôt—why in the court of law? If a lawyer cares to know how criminal procedure looks to biologists, let him read the sentence pronounced in *Erewhon*[1] by the judge on the prisoner convicted 'of the great crime of labouring under pulmonary consumption'. After expressing the pain he felt at having to pass a severe sentence on one who was yet young, and had otherwise excellent prospects, he continued:

'You were convicted of aggravated bronchitis last year: and I find that though you are now only twenty-three years old, you have been imprisoned on no less than fourteen occasions for illnesses of a more or less hateful character; in fact, it is not too much to say that you have spent the greater part of your life in jail. It is all very well of you to say that you came of unhealthy parents, and had a severe accident in your childhood which permanently undermined your constitution; excuses such as these are the ordinary refuge of the criminal; but they cannot for one moment be listened to by the ear of justice. I am not here to enter upon curious metaphysical questions as to the origin of this or that—questions to which there would be no end were their introduction once tolerated, and which would result in throwing the only guilt on the tissues of the primordial cell, or on the elementary gases. . . . I do not hesitate therefore to sentence you to imprisonment, with hard labour, for the rest of your miserable existence.'

A humane man—a lawyer too—after witnessing such a scene, not in *Erewhon* but in London, said once to me that he did think the judge might have noticed that the prisoner's head was a different shape from anybody else's in the court. The sickening cruelty of the courts is, I am happy to think, abating somewhat, but there will be no radical improvement until the functions of the

[1] *Erewhon*, by Samuel Butler, 1872, p. 96.

administrator of criminal justice are recognized as in the main medical. The criminal may be and often is hopeless; but if his case be one for treatment, let us treat it with the only remedies capable of doing any good. Give him occupation, distraction, change of thoughts, if it be possible. These, and not solitary confinement, are the treatment we should prescribe for ourselves when we fear temptation.

Take the two converse aspects of the question of population. Infant mortality is conventionally regarded by both statesmen and philanthropists as deplorable, without further inquiry.[1] Do they consider from what prospect most of these infants are delivered? Would it be better that they should be preserved to fill the workhouse infirmaries?

Other public men profess indignation against the practice, almost universal among the more intelligent and more provident classes in civilized countries, of limiting their families to two or three children. Have these patriots estimated what the pressure upon the

[1] Such an infatuation does this idea become even with statistical experts, that I find so careful a writer as Dr. Newsholme saying without qualification 'that each member of the population, when the balance between expense of subsistence and wages earned through life is worked out, represents enormous wealth'. This passage is introduced with the words 'It has been already pointed out'; but even in the place where the subject is more fully treated and Farr's calculations are given, the only reservation overtly made is for the aged. Dr. Newsholme of course means that on an average of the population there is a balance of profit, and on an average of wage-earners a high profit, not that 'each member of the population . . . represents enormous wealth'. Yet that section of the population whose value is negative should be constantly and explicitly mentioned; for there is nothing to show that a reduction in total population is incompatible with an equal or even greater profit on the whole. (See Newsholme, A., *Elements of Vital Statistics*, 1889, pp. 69 and 14.)

resources of the country would be if we mostly had six to ten children, as our parents had? The naturalist knows that a great part of the population of this country ought not to exist at all under present conditions of distribution. To add greatly to the number even of the able and thrifty will not diminish the proportion of the unfit or lighten the strain. What would be thought of a breeder who tried to keep all his stock? He wants no more than he can do well; otherwise his stock and he too will soon be ruined. The distinction which Malthus drew between 'a redundant population and one actually great' is sound, biologically as well as in economics. It is not the *maximum* number but the *optimum* number, having regard to the means of distribution, that it should be the endeavour of social organization to secure. To spread a layer of human protoplasm of the greatest possible thickness over the earth—the implied ambition of many publicists—in the light of natural knowledge is seen to be reckless folly. We need not more of the fit, but fewer of the unfit. A high death-rate is often associated with a high birth-rate, but happily a low birth-rate and a low death-rate are quite compatible with each other.

In the gloom which shrouds the future of civilized communities there is one fact which gives encouragement and hope, the decline in the birth-rate, associated as it now is with a decline in the death-rate also.

To most writers on these questions continual increase of the population of a country is regarded as the normal condition of things. This proposition is explicitly stated, for example by Rümelin,[1] in one of the leading text-

[1] '. . . so erscheint es nicht nur als empirische Tatsache sondern als die Ordnung der Natur, dass die Geburten in jeder menschlichen Gesellschaft einen Ueberschuss über die Todesfälle ergeben,

books. The naturalist knows, however, that such a phenomenon can be but ephemeral. He is accustomed to take longer views of the life of a species. In nature the numbers of a species can only increase when it is taking up fresh means of subsistence, in consequence of variation or otherwise. Parasites increase when they invade a new host. The rabbits increased when they invaded Australia, as did the sparrows in America. The population of this country increased very slowly till the latter half of the eighteenth century, when it began to rise sharply, but it was in the first third of the nineteenth century that the rate of increase became alarming, culminating in the misery of the forties.[1]

No one can doubt that the new means of subsistence which made this rise in population possible was the energy latent in the coal-fields. Nor have we to look far for the variation which enabled man to begin thus to devour the capital of the earth; and I suppose the coincidence of the first quick rise in population with the activities of that remarkable mutation, James Watt, needs

somit die *stetige Zunahme einer Bevölkerung* als die Normale, der Stillstand oder Rückgang stets als etwas Naturwidriges, als eine krankhafte, durch ausserordentliche Umstände begründete Störung zu gelten hat.' Rümelin, in Schönberg's *Handb. Polit. Oekon.*, 1890, i. 772.

[1] Sir A. Alison, *The Principles of Population*, 1840, i. 520: 'It is in the midst of this prodigious manufacturing population that the human race advances with alarming rapidity, and shoals of human beings are ushered into the world without any adequate provision existing for their comfortable maintenance. Such is the improvidence, the recklessness, and the profligacy which characterize the great bulk of the urban population in all the great cities of the empire, that the rate of increase bears no proportion to the permanent demand for labour: but mankind go on multiplying, as in the Irish hovels, with hardly any other limit than that arising from the physical inability in the one sex to procreate, and in the other to bear children.'

no special emphasis of interpretation. Sir William Ramsay estimates that the coal of this country will be exhausted in 175 years, and in his opinion it is in the highest degree improbable that any comparable source of energy will become available.[1] He limited his remarks to this country; but though there is no reliable means of estimating the coal in the earth as a whole, it is probable that within some period which is short as biology counts time, our species will be once more limited to the energy-income of the earth. We are in fact passing through a phase which is quite exceptional in the history of a species—exceptionally favourable if you will—and it is in a decline in the birth-rate that the most promising omen exists for the happiness of future generations.

Professor Marshall, discussing not the consequences of the exhaustion of coal, but another phase of the population question, remarks: 'It remains true that unless the checks on the growth of population in force at the end of the nineteenth century are on the whole increased (they are certain to change their form in places that are as yet imperfectly civilized) it will be impossible for the habits of comfort prevailing in Western Europe to spread themselves over the whole world and maintain themselves for many hundred years.' In a note to this passage he estimates that if the present rate of increase of human population continue till the year 2400 'the population will then be 1,000 for every mile of fairly fertile land: and so far as we can foresee now, the diet of such a population must needs be in the main vegetarian'.[2]

And now regarding the central problem of social

[1] *Presidential Address to British Association*, Portsmouth, 1911. This estimate followed that of the Coal Commission in excluding coal below 4,000 feet, which, if included, would prolong the period for perhaps a century.

[2] Alfred Marshall, *Principles of Economics*, third ed., 1895, p. 259.

structure, the conditions of stability in the relations of the human classes to each other and to the State, has biological science any counsel of value to give? Is there any observation that naturalists have made, knowledge acquired, or principles perceived in their study of the manifold forms of life, which in this period of grave anxiety they dare to offer as a contribution to political philosophy? Let us examine the physiological aspects of that problem. Upon the data there is now an agreement almost universal. Society consists of differentiated elements, unlike in tastes, faculties, sex, health, and ability of every kind. Some are strong, most are weak. If this complexity of civilization—the indispensable condition of evolutionary progress—is to continue, such differentiation, or some state approaching it, must be preserved. How then, in an age when knowledge is cheap and all know how the rest live, is any general content to be secured? Let us turn to the familiar comparison in which the community is likened to an organism with differentiated parts. The comparison is as old as Menenius Agrippa, or at least as Plutarch. It was one, too, which Herbert Spencer especially delighted to develop. Note next that to the biologist this presentation of the phenomenon is not a mere analogy but often a description of fact. The comparative anatomist cannot always draw a clear distinction between a compound organism with differentiated parts and a social organism with differentiated members.

I lay stress on this aspect of the social problem because I have seen several times of late the claim put forward that the teaching of biological science sanctions a system of freest competition for the means of subsistence between individuals, under which the fittest will survive and the less fit tend to extinction. That may

conceivably be a true inference applicable to forms which, like thrushes, live independent lives, but so soon as social organization begins, the competition is between societies and not between individuals. Just as the body needs its humbler organs, so a community needs its lower grades, and just as the body decays if even the humblest organs starve, so it is necessary for society adequately to ensure the maintenance of all its constituent members so long as they are contributing to its support. The simple hydroids, such as *Tubularia*, live alone, and no doubt compete freely against each other; but hydroids which remain united as compound forms have to let the food circulate among those degraded components which never even develop mouths, and all their lives function as tentacles. A body all muscle would be as helpless as a nation of Sandows; nor would a nation of Newtons live much longer than a brain removed from the skull.

From these considerations we may draw a conclusion that some elements of the doctrines vaguely described as socialism are consistent with, and indeed are essential to, stability. Society would do well to restrain competition between its parts so far as to ensure proper food and leisure for the lower grades of producers. How that restraint is to be effected is a question for the practical economist. Some such measures of restraint we have already enacted: on the whole with good results. Spencer, as every one knows, protested with vehemence against this legislation, but I have never been able to comprehend the biological grounds on which he based his protest. For if society is in reality an organism, society must apply restraints on the undue growth of its parts analogous to that co-ordinating mechanism which controls the growth of organs in the body.

Apart also from actual restraint by civil authority, there is happily hope of some effective restraint by change in public feeling.

Formerly, cruelty to domesticated animals was defended on the principle that 'a man may do what he likes with his own'. Civilized humanity no longer recognizes that defence; and slowly, even in our dealings with the weaker members of our own species, that change in public feeling has begun to act in restraint of oppression.

Motive for individual exertion must nevertheless be preserved. It could be dispensed with only in a community in which the component members were in *complete* co-ordination, as the organs of the healthy body are. The only instinct in our race which is sufficiently universal to supply this motive is the desire to accumulate property, generally as a provision for offspring. Other instincts, such as emulation, the altruistic emotions, or the mere love of activity, may all be strongly developed in some, but they are permanent in very few individuals. They are apt to weaken after adolescence, and to disappear as middle age supervenes. But for the institution of property the fibre of the whole community, as at present physiologically constituted, would slacken, and decay must immediately begin. Yet, admitting the principle that if life held no prizes no one would compete, might we not prohibit prizes of such magnitude as to jeopardize the stability of the community? To fix an upper limit on accumulation would not greatly discourage effort, for people will play hard, though the stakes be limited.

Socialism is a state that Nature knows well and has sometimes approved. Yet consider how this approval has been won. Hive bees, for example, are socialists:

the individual worker amasses no property for herself. They defend their hive. Every individual bee that stings you dies in a few hours. But the success of this socialism is founded in the instinctive, almost reflex, devotion of the bees.

Among us we have individuals who develop such feelings for a few years in early youth, and lose them later. A few possess these instincts all their lives. They sacrifice themselves, and but too often others also in their course. Such casual devotion is no base on which to form a social system. All permanent and stable change of institutions is founded in the physiological variation of instinct. In mankind we know a mysterious variation which we call change in fashion or in public opinion. It is to such a variation that constructive socialism must look for its foundation. This is but a slender hope; for that 'public opinion' must take the form of an instinctive, mystic devotion to society, not merely a passion to enjoy the fruits of other men's labour. Of socialistic public opinion in that fuller sense we see few signs.

Observe, too, how even the bees behave under sore temptation. Those who have witnessed the phenomenon of 'robbing' are not likely to forget the experience. If in August or September, when the honey-flow is failing, the bee-keeper drops a comb near his apiary, he knows what to expect. The bees find this honey undefended, easy to seize. They become instantly demoralized. They fight for it at random, stinging and tearing each other to pieces. They charge promiscuously into their neighbours' hives and indescribable pandemonium begins. After such a scene the ground is littered with dead bees in hundreds, and in the bottom of a hive I have seen a layer of bodies an inch or more thick.

Such is the instability of instinct even in the great prototype of socialism, and can we hope that the sight of undefended property would not similarly, in time of scarcity, upset the stability of a socialist State?

But there is still another side to the problem. If nature gives some clear guidance as to the distribution of the means of life, her teaching is even clearer as to the distribution of political power. Socialistic she may sometimes be, but democratic she is not. Turn once more to the physiological facts. 'All men are equal', say certain philosophers. 'That is not true', replies the naturalist. 'Proceed, then, as if it were', urges the statesman, and upon that course we have started. Founded in natural falsehood, the principle of equal rights is at length bearing fruits inevitable, though long deferred. The gift of equal power did not at first disturb the stability of society. Even the able seldom receive a new idea after they are grown up; for the foolish mass that process is then impossible.[1] A generation passes

[1] Herbert Spencer, in many of his strictures on the failure of legislation to achieve its avowed object, makes far too little allowance for the long latent period which often elapses before results appear. Commenting on the fact that laws rarely produce as much direct effect as was expected, and always produce indirect effects (which is all perfectly true), he proceeds to the following illustration, which at the present date reads somewhat naïvely: 'It is so even with fundamental changes: witness the two we have seen in the constitution of our House of Commons. Both advocates and opponents of the first Reform Bill anticipated that the middle classes would select as representatives many of their own body. But both were wrong. The class-quality of the House of Commons remained very much what it was before. While, however, the immediate and special result looked for did not appear, there were vaster remote and general results, foreseen by no one. So, too, with the recent change. We had eloquently-uttered warnings that delegates from the working-classes would swamp the House of Commons; and nearly every one expected that, at any rate, a sprink-

and their children, who learnt of it when young, become aware of the new power, with the consequences we are about to witness.

Of abstract rights, biology knows little: of equal rights, nothing. Philosophers have conceived men born with rights as they are with livers or with spleens. Perhaps they are; but since all those birthrights which can be expressed in terms of health or powers of mind or body are unequal, we find it difficult to suppose that there is some other kind of rights which we possess equally. Some would reply that *equal opportunity* is the right of all. But what use is equal opportunity to those who cannot use the opportunity equally? Either we must waste our strength in creating opportunities for those who cannot profit by them, or by aiming at the lower grades of mankind we deny to the rest the only opportunities which will enable them to develop.

All these familiar ideas will acquire new meaning in

ling of working-class members would be chosen. Again all were wrong.' *The Study of Sociology*, ed. 1908, p. 270.

So again he speaks with great contempt of the legislative efforts to suppress diseases among cattle, which (partly no doubt by the development of greater physiological knowledge) have now been very effective in most cases, and completely successful in many. In 1873 he wrote (*The Study of Sociology*, p. 164): 'Since 1848 there have been seven Acts of Parliament bearing the general titles of Contagious Diseases (Animals) Acts. Measures to "stamp out", as the phrase goes, this or that disease have been called for as imperative. Measures have been passed, and then, expectation not having been fulfilled, amended measures have been passed, and then re-amended measures; so that of late no session has gone by without a bill to cure evils which previous bills tried to cure, but did not. Notwithstanding the keen interest felt by the ruling classes in the success of these measures, they have succeeded so ill, that the "foot-and-mouth disease" has not been "stamped out", has not even been kept in check, but during the past year has spread alarmingly in various parts of the kingdom.'

the light of the new knowledge of the definite composition of individuals; and it would be well, perhaps, if those who are now contemplating a great extension of equal political power to still lower grades of our population would consider how such a proposal reads when translated into physiological terms.

The political reformer claims to raise the standard of a population by thus providing opportunity in ameliorating the conditions of life, and it is worth noting the sense in which his claim is physiologically justified. The gardener by pricking out his seedlings gives them a chance of developing. Left crowded in the seed-pan, none, or very few, will become decent plants. The few successful, if there are any, may owe their success to their special qualities, but more often than not it is determined by mere accident of position near the tally, or against the edge of the pan, where they get most water or light. The botanist knows too that wild plants growing in the competition of a turf or amongst brushwood are usually half-starved. Set out, clear of their kind, or of weeds, many of them can grow to twice the size. So with the crowded masses of humanity. They may, so to speak, be 'potted on'. Given hygienic conditions and better opportunities, they may develop into decent specimens, but they will not turn into better kinds. In the new countries the consequences of this process of planting out can be seen on a very large scale. The emigrants prosper. They are well fed. Except in a few large cities slums do not exist. All can develop; and if we do not expect what the gardener calls 'important novelties' the result is admirable.

It is upon mutational novelties, definite favourable variations, that all progress in civilization and in the control of natural forces must depend. How will *they*

fare in a socialistic community? What stimulus is left to tempt them to exert their powers? In the born discoverer the instinct to find out natural truth is a strong passion, and those who have that feeling will gratify it, just as the artist or the poet works when rejected by the market; but those who invent applications of discoveries are generally thinking of patent-rights, and if none are to be had, they may take life more easily. Is it not certain that all the forces of the community will be invoked against men of extra power? They will be treated as a disturbing nuisance. The progress of modification of a race composed of independent individuals can proceed by variation of individuals, but in a community organized on the principle of equality—if it can be imagined—an individual variation of any magnitude will be either without result or must produce immediate disorganization and disruption.

The ideals therefore of socialism and of democracy are incompatible with each other, and the incompatibility will appear when the period of destruction is over. It is strange that the two words are so commonly associated. 'Social democracy' denotes not one ideal but two. In order that the socialist community should succeed it must have but one mind, as the bees apparently have, not the uncoordinated resultant of all individual minds, which is the ideal of democracy. Until these two coincide, not occasionally only but in some permanent fashion, destruction may proceed but construction cannot begin.

The essential difference between the ideals of democracy and those which biological observation teaches us to be sound, is this: democracy regards class distinction as evil; we perceive it to be essential. It is the heterogeneity of modern man which has given him

his control of the forces of nature. The maintenance of that heterogeneity, that differentiation of members, is a condition of progress. The aim of social reform must be not to abolish class, but to provide that each individual shall so far as possible get into the right class and stay there, and usually his children after him. Men rise from below and fall from above, and the fact is sometimes appealed to as evidence that such vicissitudes are a normal and wholesome phenomenon. The naturalist sees that the convection currents to which such displacements are due must indicate special kinds of disturbance. These disturbances are mainly due to interbreeding between the social grades, and between sections of the population formerly isolated. Such rapid social diffusion must mean either that much original variation is happening, or that extraordinary changes are affecting the conditions of life. There is no doubt that in the case of our own age *both* phenomena can be recognized, but the human variations in mental power are the primary factor, and they have created the disturbance in the conditions of life. Just as the numbers of the population tend always to reach an equilibrium in which births balance deaths, so do the differentiated elements of the population tend always to find their particular level, near which they would stop till the mass is again disturbed.

The fact that families or individuals rose into prominence or dropped into obscurity when the great industrial development of this country began, does not prove that the strains from which they came ought previously and in differing circumstances to have been in different relative positions. In various circumstances various qualities are required for success. It would be useful to illustrate this by actual examples discussed from the biological standpoint, but it will be sufficient to say that

as we have come to recognize that evolutionary change proceeds not by fluctuations in the characters of the mass, but by the predominance of sporadic and special strains possessing definite characteristics, so in a society may previously existing types find their opportunity in the supervention of new social conditions.

When King David said, 'I have been young, and now am old: and yet saw I never the righteous forsaken, nor his seed begging their bread', thus asserting the permanence and heritability of success, he is thought by some to show himself singularly inobservant. But I doubt whether in the Middle Ages or in any other epoch when conditions were comparatively uniform over long periods of time, he would have been regarded as saying anything contrary to general experience.

However that may be, he is declaring what *ought* to be true in an ideal State. We have abolished the Middle Age conception of the State as composed of classes permanently graded, with the ladder of lords rising from the *minuti homines* below to the king on his throne, and yet to such stratification, after each successive disturbance, society tends to return.

But those *minuti homines*, how are they to be contented, for is it not the duty and the desire of all to content them? The first and greatest step towards such contentment is taken when the grades find their right places. At such a time as the present much of the intensity of discontent is due to the fact that some are at the bottom who should be higher, while some are high who should be lower. For time is of the essence of the proces s; and two generations have scarcely passed since the great changes began. Then, strange as it may seem, content is not so very rare after all. There is a discontent which is caused not because

something is withheld from us, but because we know our own inferiority ; for that there is no cure. Decent food and lodging, however, go far to satisfy *minuti homines* in general. Very early most of us accept the truth of Schumann's aphorism, that if every one were determined to play first fiddle no orchestra could be got together.

As a boy in Cambridge I learnt that if a man got a first class he might be happy ; if he got a second class he would be unhappy ; if he got a third class, nothing but misery and a colonial life awaited him. When we grow older we unlearn these simple propositions, and we find that happiness is in many cases compatible with weekly wages and even with a pass degree. Some will have more than others. As in the body the heart is arranged so that the best blood goes to the head, so must and ought it to be with society.

Whatever is doubtful, this much I think is certain, that we are fast nearing one of those great secular changes through which history occasionally passes. The present social order is too unstable to last much longer, and he must be callous who greatly desires that it should. What will emerge from the approaching histolysis no one can predict. Let us hope, something better : and to this end may those upon whom devolves the duty of rearing that new organism, which is to grow from the dissolved tissues of society, be guided in their treatment, like physicians of the modern age, not by nostrum merely, but by the facts of natural physiology.

The Frazer Lecture

1922

THE EVOLUTION OF KINSHIP

AN AFRICAN STUDY

BY

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THE EVOLUTION OF KINSHIP: AN AFRICAN STUDY

We are met this evening to inaugurate a series of lectures on Social Anthropology under a scheme to commemorate the work of one who has probably done more than any other living man to carry forward the study of that subject, by interesting in it people of all ranks and classes in this country and elsewhere, through his strenuous labours, his enthusiastic application to the solution of some of its many problems, and by his eloquent and fearless advocacy of the truth and the whole truth, as he understands it. This is not to claim that he has discovered all that is to be known on the matters he has spent so many years in studying and expounding. Truth is far wider than the vision of any single man. However much one may discover and verify, there is still a universe beyond to explore. Nor does this attitude of admiration for Sir James Frazer's work imply that we definitely and finally accept all his conclusions, so far as they go, or even a specific conclusion. It implies much more than this. It acknowledges and glories in the profound significance of his inquiries for ourselves and all thoughtful persons; it asserts that these inquiries are of value for the intellectual and spiritual progress of the race, that they have been undertaken in high seriousness, and that if they have not achieved the full end they proposed, they have at least shown us the direction in which to look for answers to the questions that we are driven to ask in exploring the history of the past, and in trying to under-

stand the present condition of humanity, in attempting to measure the effect on mankind of 'all this unintelligible world', and the response to environment of our complex nature. It embodies, in short, our appreciation of his efforts to explain the facts of history, and it takes a form intended to assist others in probing ever more deeply into those facts, and to urge them by his example to desist from no effort, from no toil that promises an intelligible result.

I need not say that I esteem it a great honour to be invited to open the series of lectures this evening. But I have undertaken to do so with many misgivings. The more closely I approached the task, the more I have felt my inability to lead the way in a manner worthy of such an occasion. I could have wished that some one had been selected who had himself been in direct touch with a people in a stage of culture remote from ours, and who would have been able to bring his resources and his experience of such a people to aid in solving the many riddles that constantly perplex anthropological students. It may, however, be that one who has for many years been occupied more or less with these problems may be able to contribute a little, even from an easy chair, towards the furtherance of the scientific investigations in which he is interested. I hope, therefore, that you will forgive me if I have the temerity to ask your attention for a few minutes to the social organization of some of the Bantu tribes and the way in which it has evolved as a result of their history.

The Bantu race is one of mixed Hamitic and Negro descent, speaking in many dialects a language of its own. It inhabits Africa from the Equator to the south coast. The most recent researches have led to the conclusion that its original home was in the region of

the great lakes and that it has migrated thence in several streams, coming down either side of the continent until it met the Hottentots, a different race bearing probably much Hamitic (or Semitic), Negro and Bushman blood; and its progress was thus stopped, or at least delayed, both east and west before it had reached the extreme south. A more virile and prolific race than the Hottentots, it was, when the White Man with his insatiable thirst of adventure and discovery arrived, still pressing on and gradually though slowly overwhelming the Hottentots and ousting them from their ancient seats. The Bantu are thus late comers throughout the greater part of the territory they occupy. We need not discuss questions of chronology here. It is evident from their warlike character and still mobile habits that the movement was recent as the life of nations is reckoned, and it has in fact hardly yet ceased. In migrations over an expanse so vast and the constant encounters with foes sometimes of alien race, sometimes of their own, the influences to which the Bantu have been subjected and the consequent changes in their social relations must have been very great and numerous. Of this outcome of a history so full of varied fortunes and relentless tragedies I propose to examine this evening a few examples.

The Bantu are by no means on the lowest step of civilization. Their social organization has progressed in various directions. The race started with a tribal organization and the classificatory system of kinship—that is, a system of kinship in which all the terms are terms expressing not individual relationships but those of groups. That system is very different from ours. It is the system in use by practically all peoples in the savage state and in the state of what we call the lower

barbarism. It is framed to express not physiological but social facts and relations. By peoples in this stage consanguinity is not fully understood. True, it is perceived dimly, but it is utilized only very gradually as the facts are progressively assimilated. The process takes generations, indeed millenniums, during which the terms in use by the old reckoning are slowly adapted to the conditions evolved by increasing knowledge and experience, and are changed or supplemented from time to time. In the lower culture the communities are relatively small, and by means of the classificatory system a man knows precisely in what relation he stands to every other member of the community to which he belongs. This is essential in a society which is not a state but a tribe. Such a society is based not on citizenship but on kinship. Every person therefore must have a recognized relationship, nearer or more remote, to every other member, or he is an alien—that is to say, an enemy, with no rights whatever, not even to life itself.

In the most archaic condition we have been able to discover, such a tribe is usually found divided into totemic clans having descent on the mother's side only. A totemic clan is a group whose symbol is an animal or plant or some other object which they regard with quasi-religious respect, avoiding it as taboo or sacred, and whose members are held to be related to one another in a brotherhood traced either through the mother or through the father, but not through both. The mother's side is that, in regard to which the first glimmering of consanguinity or physiological, as opposed to social, kinship enters the savage mind; and in such a condition it is probable the Bantu-speaking peoples started on their career—a career in the course of which

some branches of the race have attained a comparatively high civilization and founded stable and powerful kingdoms, while others, less favoured, have scarcely passed beyond the hunting stage, or at best are pastoral nomads.

We all remember the ancient saying that there is always something new from Africa. The observation is hardly less true now than when it was first uttered. A commonplace during the boundless revelations of the last two generations, it has received since the war a fresh and unexpected illustration in the book by Edwin W. Smith and the late Andrew Murray Dale on *The Ila-speaking Peoples of Northern Rhodesia* (2 vols., 1920). From the happy combination of a British missionary and a British Government official, both of them long familiar with the country and the people, we have in this book an unsurpassed account of a society of which we hardly even suspected the existence. In this society we find a tribe in the act of groping its way out of archaic conditions, of passing from clan-kinship and descent through the mother only, by way of paternal descent to true consanguinity. They are indeed still a long distance from the goal; but perhaps it will be interesting to spend a few minutes in watching their efforts, in tracing the mode and direction of their secular struggle, and comparing the process with that through which certain other branches of the race are passing on the road to higher social relations.

The Ba-ila, or the Ila people, inhabit the very centre of the continent. They are congregated on the banks of the River Kafue, a tributary of the Zambezi, descendants of more than one stream of Bantu immigrants from the north or north-east, coming probably by different routes and at different times. Hence they are a mixed people

of whose origins and early history their traditions appear to have preserved no information—not even the most illusory and untrustworthy—save that they tell us that their ancestors 'descended' on a certain rock, which is dented with pits or grooves said to be the footprints of these ancestors when they first set foot upon it; but whence they descended, or how, or why, the Baila are mute.[1] They are divided into totemic clans which are exogamous and derive their descent exclusively through women. The authors give a list of these clans, confessedly imperfect, amounting to ninety-three in number. Since the bride is taken to live with her husband wherever his abiding-place may be, the clans are spread all over the country.[2] Politically the country is divided into about eighty communes, each of them concentrated round one or more villages. Each commune is ruled by a chief and each village, or in case of large villages each segment of the village, by a head-man, who is appointed by election, usually from among his predecessor's 'children' or nephews (that is, his sisters' sons).[3] His appointment to office generally involves his succession to the personal inheritance of his predecessor; for the first thing he has to do is to pay his predecessor's debts. He must therefore not only be a man of ability on the mental side, but also be qualified on that more material side on which the chief of an English town is likewise expected to be endowed.[4] A commune may comprise inhabitants belonging to many totem-clans, for though a totem-clan is by no means confined to one community, it is often specially associated with it in the public mind

[1] Smith and Dale, i. 3, 18, 20.
[2] *Ibid.*, 283, 287, 292, 294.
[3] *Ibid.*, 299, 300, 304.
[4] *Ibid.*, 305.

and speech. Such an association may have arisen in different ways, as notably perhaps because the clan is strong in numbers there, or because a well-known man who belongs to the clan is chief of the commune.[1] It has been very unfortunate for the well-being of the Baila that these communes have never been able to combine together into a single state. They have not lacked a common consciousness: they have a common language. They have not lacked external pressure. During the last hundred years they have had constant collisions with the Makololo, the Matabele, the Barotsi, and other neighbours whose names are less familiar to us. More than once they have been invaded and overrun; they have been compelled to pay tribute; and they have emerged from these troubles from time to time with a population depleted and their land swept bare of cattle.[2] The history of the last hundred years has probably been a repetition, perhaps in a more emphatic form, of the history of previous centuries. Yet all has not availed to quiet the jealousies and quarrels of the various communes, or to unite the people even temporarily for purposes of defence. Every commune is independent and will yield nothing of its barbarous freedom. It is hostile to every other commune. The result has been continual internecine strife, raids, murders, anarchy, until the Rhodesian Government intervened, took possession of the land, and brought in the *Pax Britannica*.[3]

But beside the communes and the clans there is a further sub-division, and it is this which renders the social organization so interesting. When a young man marries and takes his bride home he sets up a house-

[1] *Ibid.*, 299, 291, 283. [2] *Ibid.*, 22 sqq.
[3] Details are given, *ibid.*, 22–57.

hold, he founds a family. He is the head. His domestic establishment is of course limited in number, consisting of himself, his wives and children, with sometimes an aged parent, and his slaves; for domestic slavery is a deeply-rooted institution. All these dependents are comprehensively grouped around him as his 'children'. The peculiarity of the Ila family consists in the fact that kinship is reckoned as far back as the lineage of the family can be traced, not through the mother, as on the analogy of the clan we might expect, but through the father exclusively.[1] This leads to very curious and remarkable complications. Messrs. Smith and Dale lay it down broadly that 'the Baila reckon consanguinity through the father only'. We will see how this really is.

It must be borne in mind that consanguinity is physical, whereas kinship in the savage sense is social. By virtue of the classificatory system many more persons are reckoned as kinsmen than we are ourselves disposed to admit—indeed, many more than any system founded on and expressive of consanguinity can admit to any degree of kinship. It admits entire groups under one appellation. It admits, for instance, to the name and relation of father of a person not one man but a number of men belonging to the generation preceding his own. Every one has many fathers, not only the man who begat him, or who was the husband of his mother, but all that husband's brothers, many of his cousins, and in fact all the men of his generation belonging to the same clan. In the same way the women of the same generation, or who are married to men of that generation and that clan, are all reckoned as mothers to the succeeding generation. In ordinary circumstances

[1] *Ibid.*, 283, 284.

a woman knows her own particular child and the child knows his own particular mother, if he be not clever enough to identify his own particular father. At least he can identify his own mother's husband, and even in the classificatory system he makes distinctions in ordinary speech between persons in these relations, calling, for instance, one 'mother' or 'father' simply and another 'little mother' or 'little father' and so on. But no such distinction is made in the laws of the tribe. In very archaic times, indeed, it is possible that it was obscured by a practice of nursing and suckling the children of the clan in common. The group-relationships were not limited to the father or mother; they extended throughout the clan, and they conferred and imposed correlative rights and duties. Every member of the clan of the same generation as a given man or woman was his brother or sister and 'father' or 'mother' to his children. Among the Arunta of Central Australia, who like all tribes in the lower culture have the classificatory system, when a man dies his daughter's husband is required to mourn for him, and among the mourning rites he is expected to inflict with a club great gashes on his shoulders which must be most painful, since they leave him with cicatrices for the rest of his life. This duty rests not only on the man who has actually married a daughter of the deceased, but on all those who according to the customs and institutions of the tribe could have done so; and the penalty for infringing the rule by not inflicting serious wounds on himself was that any other father of an actual or possible wife might take her away and give her to another man![1] This is perhaps an extreme case, but it illustrates the far-reaching application of the classificatory system.

[1] Spencer and Gillen, *Native Tribes of Central Australia*, 500.

The system was a reflection of the social organization. It is founded not upon physiological but upon social facts. For reasons which I have elsewhere discussed it seems that in the early stage in which it arose the physical relation of a child to its father was unknown. What people were conscious of was the existence of a society communistic in its character where all the members were closely bound together, not merely by locality, but also by common experience, common needs, aspirations, beliefs, hopes and fears, and in which the chief difference discernible between individuals was the difference of age, as to which indeed their ideas were anything but precise. These are the facts expressed in the classificatory system. The perception of physiological facts naturally began with the relation of a child to its mother. Once that perception started it grew, but it grew slowly. After a while human predilections, jealousies, and selfishness aided its growth and gradually prevailed over the primitive communism which we must presuppose—nay, for which we have evidence not only in the classificatory system itself, but also in the condition of savages in various parts of the world. These concurred with increasing knowledge and mastery of nature, and the consequent increase of wealth and power, to produce groups of various kinds with their inevitable consequence of distinctions in the ranks and classes of society. Civilization has then fairly begun. One after another these developments left their marks on the system of kinship. Old words were used in new senses. New words or phrases were introduced. Each tribe, each community worked out its own development, not necessarily or probably in isolation, but in the course of collisions with, or peaceful infiltrations from, its neighbours. The

process has taken many generations, and is even yet incomplete.

While all the Bantu peoples are in a relatively advanced stage of civilization, some more, some less, the Baila are not in the front rank. Like all Bantu tribes, their civilization is based upon the clan: the family appears to be a new-comer into the field, and to be still struggling with the clan for influence. Its entrance into the social life of the tribe as a patrilineal institution must probably be accounted for by the rule that on marriage a wife goes to her husband's dwelling and makes her abode there: he does not come to that of her kindred. The same rule obtains among the aborigines of Australia. There all the tribes originally, it is probable, reckoned lineage and kinship exclusively through the mother, but a large number of them, roughly all those of the western half of the continent, have become patrilineal. I think it is not too much to conclude that the change in this case is the result, mainly, at least, of the residence of the wife with her husband's band and under his authority and protection.[1] Among the Bantu the wife is generally married by purchase, that is, by the payment of a bride-price which transfers to the bridegroom the exclusive possession of the bride and the right to the children that may be born of the union. To this rule the Baila are no exception. But the transfer of the children involves more than their possession and con-

[1] I have argued this in *Mem. Amer. Anthrop. Assocn.*, iv. 65, 86, and, subsequently, in *Primitive Society: the Beginnings of the Family and the Reckoning of Descent*, 40. It may be worth noting that Sir Baldwin Spencer who had formerly expressed a different opinion on the priority of female descent, has on fuller consideration accepted that priority among the Australian tribes (see his Presidential Address to the Australian Association for the Advancement of Science, Offprint, p. 34).

trol: it involves also the reckoning of their descent from the husband and his forefathers, instead of from his wife and her foremothers. In this way most of the South African Bantu have bridged the transfer from maternal to paternal lineage. The Baila, however, have not abandoned the old reckoning. All their clans still count descent through the mother, as they did at the time of the Bantu dispersion. The problem is how the new reckoning through the father is to be reconciled with it. The clans are powerful. Each of them has its totem or totems; and though there are signs of a change and development, perhaps a degradation, of Bantu totemism in the taking of additional totems by the several clans and some apparent advance in the localization of the clans, the totem is still a bond between the clansmen, wherever they may be. A clan is moreover, as the authors rightly point out, 'a natural mutual-aid society'. An offence against one member of a clan is an offence against all. All spring to arms on his behalf. An act of aggression by one member is the act of all, and all are liable to suffer for it. All contribute to the bride-price payable by a clansman, and to fines laid upon any of them. Reciprocally the members of the clan share in the bride-price paid for a girl of the clan and in the fines paid for the offence of a member of another clan against a fellow-clansman of their own.[1] In short, the clan is still the centre of the primitive communism: it is the main pillar of the social structure. The father as head of the new institution of the family is recognized as the ruler of the household. But divorce is frequent and the household may break up. In this case, though the children are his and remain with him, they do not belong to his clan, and his control over them, even while their

[1] Smith and Dale, i. 296.

mother is still part of the household, is overriden by the claims of her clan exercised through her brothers.[1] If a child be married it is the clan (not the father) who decide upon the match, and settle the amount of bride-price to be received or given: the father gets (or apparently gives) very little of it.[2]

Further, if a member of the clan go to visit a place where the clan is dominant, and where another member of the same clan is chief, he will find himself in an entirely different position from what he enjoys where he was born, or where his father lived and, it may be, was chief. He will find that he has a status there which he has not at the place of his birth. It is his mother's home, the home of his clan. In the event of the chief's death he will be eligible to succeed him. He is a kinsman in a sense in which he is not a kinsman at his father's home. There he is 'a mere nobody'; his clan is not there, though his father's clan may be dominant. The men of that clan may politely refer to him as 'our child', but he is an alien. To the men of that clan he has only 'a half and half clan, a pseudo-clan'. When sacrifices are offered, an oblation made on his behalf will only be an oblation of water; he is not of the clan, he is 'treading the land of others'.[3] In saying, as the authors do, that 'consanguinity is traced through the father only', they are going too far. Physical relationship, consanguinity, is as yet imperfectly understood. What we have is a competition between two kinds of kinship—one through the father, the other through the mother—both social, not physical. So far the Baila only reckon relationship through the father to a very limited extent. It is true that in a loose sense they count as relations

[1] *Ibid.*, 284. [2] *Ibid.*, 297.

[3] *Ibid.*, 286, 287.

the kindred both of the mother and of the father. This may be a result of the confusion caused by two competing kinships. Where descent through the father only is fully established, it is not consanguinity but social relationships only that are even there expressed. By reason of social requirements, of the freedom of the sexual relations, or of the necessity to arrange for the continuance of a family in order to provide for the continuity of ancestral worship, no child can be so wise as to know his own father, and physical paternity is not a determining factor, as it is with us.

In the meantime it is obvious that among the Baila matrilineal descent is fighting a losing battle, and there can be little doubt that, if they had been left to the play of the forces of native culture only, they would sooner or later have adopted patrilineal kinship, as other Bantu tribes have done.

While the tendency to change from kinship through the mother to kinship through the father is universal among the Bantu, every tribe seeks for itself the solution of the problem how to effect the transfer. We will inquire how some of them have accomplished or are seeking to accomplish it.

Far to the north, in the cradle of the race, the Baganda have attained the height of Bantu civilization. In their case the introduction of descent through the father seems to have been the result of the conquest and unification of the country by a patrilineal people, conjectured to have been of Galla race from the north. Tradition places the coming of the first king thirty-three generations ago.[1] If we could measure this period by our own customs its commencement would thus be fixed about a thousand years ago ; but, seeing that the Bantu

[1] Roscoe, *The Baganda*, 186.

marry and begin the rearing of children much earlier than we do, the actual time would be far shorter than that. In any event it is unsafe without independent evidence to rely upon tradition, which is always liable seriously to distort the facts underlying it. We can therefore do no more than accept the fact of the formation of the kingdom by foreign conquest, leaving the probable date to be determined by further inquiry. What we know of the customs of the Baganda leaves us in little doubt that the conquered people at that date still reckoned their lineage through their mothers, and that the conquerors, on the contrary, were patrilineal and imposed their reckoning on the people in general—a process still awaiting completion. The king must consort only with Baganda women, to secure that the issue would be eligible for the crown. If he married a foreigner the children would be deemed aliens and be excluded from the succession—a manifest relic of maternal kinship. There is, moreover, considerable competition among the clans for the honour of giving a mate to the king, and the possibility that a king, the fruit of such union, could be claimed as a kinsman. This is secured by rendering it illegal for the king formally to marry any lady who may become the mother of his children. All such ladies are simply taken into his harem, and his acknowledgement of their issue renders them, if male, eligible to succeed him. The king's sons always take their mothers' totems, and the clan to which the mother belongs claims them as its children.[1] The children of ordinary parents are taught in infancy to respect their mothers' totems as well as their fathers'; that is, the children are brought up as members of both clans. But when they reach adolescence

[1] *Ibid.*, 187, 189, 84, 85, 86.

they discard their mothers' totems and retain those of their father. It seems to be an act of choice that by universal practice has become obligatory.[1] In this way the Baganda have solved the problem of transfer.

The Baganda combine pastoral and agricultural work. The men keep the cattle, of which they have large herds of different breeds; the women cultivate the ground.[2] Economically both industries are important. They have both contributed to the degeneration of totemism, and materially restricted the importance of hunting. Thus they have had a decisive effect on the progress of society. In the arid lands of south-west Africa the Herero were an exclusively pastoral and migratory people. Their totemism also was of a degenerate and abnormal character, but such as it was they held to it. The trend towards male kinship was displayed in a double organization. The older organization was the *eanda*, the matrilineal clan; the newer organization was that of the *oruzo*, a clan reckoned entirely through males. Every Herero was at the same time a member both of his mother's *eanda* and of his father's *oruzo*. Both were totemic, but the *oruzo* had taken over the totemic usages, except the blood-feud. That remained to the *eanda* and against the offender and his *eanda*. The cattle, in which the wealth of the people consisted, were inherited by the *oruzo*. If, however, the paternal side failed, the cattle might be inherited by the *eanda*; but the heir, before he could incorporate them with his *oruzo*-inheritance and take them to his own kraal, was required to perform a religious ceremony. They then became his individual property. It is clear that the *oruzo* is of comparatively recent introduction. It probably owes its strength to economical causes. Cattle-keeping, which

[1] *Ibid.*, 133.

[2] *Ibid.*, 415, 416, 426.

is the only industry, is carried on, everywhere among the Bantu, only by the men. The women are not allowed to have anything to do with it. That seems to have given the *oruzo* its power, but it has not yet had time to overcome the deeply-rooted tradition of maternal descent.[1] The tribe was almost destroyed by the shameless brutality, greed, and cruelty of the Germans; and how far it is recovering since the war, or what form its institutions are now taking, we have yet to learn.

The social polity of the Bafiote of Loango has more interest for our special purpose. Whereas among the Baila kinship through the father is making its way by means of the family, it is remarkable that the family is the stronghold of maternal descent and kinship among the Bafiote. Unlike the Herero, they dwell in a rich, well-watered land at the mouth of the Congo and live a settled life as cultivators of the ground. As this is work done chiefly by women it is probably the chief influence that has preserved their matrilineal institutions. The family, whether high or low, is continued only through the mother. All rank as well as property descends through her. Royal princesses are of all women most favoured. As soon as they arrive at maturity and have passed through the paint-house (a necessary step to becoming marriageable) they have a political position, seats and voices in the councils of state, for it is from them that the heir will ultimately derive his title. They may choose their husbands freely and change them when they will.[2] The ordinary woman is married by payment of a bride-price or a present of

[1] I have more fully considered the organization of the Herero in *Mem. Amer. Anthrop. Assocn.*, iv. 16, and in *Prim. Soc.*, 73.

[2] Pechuel-Loesche, *Volkskunde von Loango*, 187.

goods to her parents. She is taken by the bridegroom to his dwelling and is required to be faithful to him.[1] Husbands are very jealous. The law of adultery is everywhere very strict. Among the neighbouring Mayumbe the husband may even put his wife to death if a man merely touch her unwittingly.[2] Yet matrilineal descent among these tribes draws no distinction between legitimate and illegitimate children. All alike they are reckoned to the mother's kin, and succeed to their uncles', not their fathers', property. Birth, we are told, sanctifies the child.[3]

Among the Bafiote both father and mother are consulted as to their daughter's marriage, and apparently they share the bride-price.[4] Further inland, on the banks of the Kwilu, among the Bahuana it is otherwise. There the aspirant for a girl's hand woos her with gifts, until 'his heart becomes big', or he has no more gifts to give her. Then he takes a present to her mother (not her father) and says he wants to marry her daughter. The old lady does not regard the matter very seriously. She does not even consult her husband. Why should she? Her daughter belongs to her family, not her husband's, and has resided at her mother's brother's village ever since she reached maturity. So the complaisant mother simply says: 'I don't mind'; the happy swain carries the bride off to the hut he has prepared for her, and the affair is finished. Nothing is said of a bride-price.[5]

The Bafiote have, in fact, got farther on the road to paternal descent than the Bahuana. As among the

[1] Dennett, *F. L. of the Fjort*, 20.
[2] Bastian, *Deutsche Expedition an der Loango-Kuste*, i. 168.
[3] Dennett, *J. Afr. Soc.*, i. 265. [4] *Ibid.*, 262.
[5] Torday and Joyce, *J. R. A. I.*, xxxvi. 285.

Baila, the clan or sib stands in opposition to the family, but, unlike that of the Baila, the clan is heritable in the male line.[1]

The royal family, however, recognizes no kin through the father and has no clan. It is a caste of itself. The members are marked off from other people by a separate burial-place or cemetery, and a separate totem, the leopard, which is the royal beast, the symbol of what we may call the state.[2] They are above all courts of law, and cannot be compelled even to give evidence or to pledge their oaths. The husbands whom the princesses marry do not become royal; their consorts, when tired of them, simply discard them.[3] The women of the royal family at least practise unbounded mother-right, to use the convenient term for the totality of matrilineal institutions in their pure form. As the old Scotchwoman said about the Hebrew patriarchs, they have 'great privileeges'.

Dr. Rivers kindly suggests to me that the explanation of this and other peculiarities of Fiote society is to be found in a body of matrilineal immigrants who succeeded in becoming the ruling class of Loango, but failed to impress their polity as a whole on the patrilineal tribe whose chiefs they had become. The Bafiote are a mixed people. A number of other Bantu-speaking tribes seem to have gained a footing at their expense in Loango at various times, and the present population shows evidence of the incorporation of members of many stocks.[4] According to tradition the royal stock is an immigrant.[5] This, if correct, would account for its

[1] Pechuel-Loesche, 467.
[2] *Ibid.*, 468.
[3] *Ibid.*, 187.
[4] *Ibid.*, 2 sqq.
[5] *Ibid.*, 175. Cf. Miss Kingsley's Introduction to Dennett, *F. L. of the Fjort* (London, 1898).

position before the law. But the people among which it settled can hardly be described as a patrilineal people without some qualification. We have no evidence when this immigrant stock settled among the Bafiote, or obtained supreme power. Probably, however, Dr. Rivers' conjecture is substantially correct, and the Bafiote were then already far on their way to the adoption of a patrilineal polity which the immigrant stock, though it could not entirely prevent the adoption, may have to some extent retarded.

If we turn to ordinary women, who do not enjoy royal privileges, although they are closely hemmed in by their husband's jealousy, yet even they are by no means the slaves or beasts of burden we often suppose them to be. The wife is mistress of her own hearth. It is true she has to cook for her husband, and to provide him with vegetable food from her own fields by her own labour or that of her slaves; all beyond what is reasonably necessary for him she keeps for herself or her children. Nor can her husband take a vegetable from her basket or an egg from her store without her permission. She works no harder than he does, often much less, and in a polygynous household she has a helper in every one of her co-wives.[1]

A prominent institution, however, is the *china*, or prohibition. This seems to be a degenerate form of totemism, of which, through the development of the fetish-cult and the influence of the *banganga*, or medicine-men, who are very powerful among the Bantu of the west and south of Africa, there remains little more than a system of prohibitions. When these prohibitions are recent they are not totemic; they are

[1] Pechuel-Loesche, 187, 214.

prescribed by the authority of the medicine-man, or undertaken by vow, to avert some danger imagined to threaten him on whom they are imposed, or by whom they are undertaken, or else to cure an illness. Such prohibitions are generally personal to him; they may be temporary, they may last his life long, or they may even be continued to his family after his death. But when a prohibition is of ancient date, it is transmitted in the paternal line and bears every mark of being totemic: the object or species of animal or vegetable avoided is avoided by the whole clan, and the members of the clan are bound to exogamy. The *china* is in fact the totem; it is the symbol that unites the members of the clan; it provides the children of a polygynous household with a test of their common descent on the father's side; it unites them in a common interest in their quasi-divine ancestors, whom they are required to worship and from whom in the world of the departed they expect paternal care and assistance; it provides a correction to the centrifugal tendency of mother-right, and enables the children of one father to present a common front to their enemies and oppressors. For the clan, being in its essence a political as well as a religious body, manifests itself in common action and mutual protection. More than that, if the German professor Pechuel-Loesche's investigations may be trusted, Fiote speculations on the subject of the soul have yielded a basis which may be termed philosophical for the unity of the paternal line. Whereas the mother's family rests on birth, on the unity of the flesh and blood, the clan is inherited through the father, the begetter, because it is he who transmits the life, who continues the potency of the forefathers, the soul-stuff, from generation to generation. Among the Negro races

love for the mother and the tenderest attachment to her are a marked and pleasing characteristic, emphasized by the polygynous polity which dissipates the father's responsibility and affection among the children of numerous mothers often drawn from a wide area and many tribes.[1] But, at least among the Bafiote, the children recognize that there is due also a loyalty to their father and his ancestors. He is the author of their being and a senior member, if not the head, of their clan; and this necessarily carries with it the recognition of their relation and duties to their brothers and sisters, equally with themselves the children of their father and members of their clan, though not children of their mother.[2] Thus the institutions of the Bafiote, evolving in the same direction with those of the Baila, are evolving in quite a different manner. Those of the Baila are evolving by means of the family; those of the Bafiote are evolving by the agency of the clan. While the Baila are effecting the transfer from kinship through the mother to that through the father by means of the family, the Bafiote are effecting the same transfer by means of the clan, though neither of them as yet has solved the problem.

These are some of the ways by which in the development of civilization various branches of the Bantu-speaking populations are finding their way from the archaic institution of mother-right into a new conception of kinship and social polity. But this is only one side of the evolution that is taking place. With widening knowledge the consciousness of the relation of indi-

[1] Miss Kingsley, for instance, records that she knew one gentleman whose wives stretched over 300 miles of country, with a good wife-base in a coast-town as well (*Travels*, 215).

[2] Pechuel-Loesche, 468.

viduals to one another is being quickened. The recognition of paternity reacts on the whole conception of kinship, and consanguinity begins to be substituted for social kinship as the basis of society. The terms of relationship become more and more definite, and connubial relations are gradually limited in directions previously unthought of. The classificatory system which does not distinguish between individuals in a class gives way. In this slow process many inconsistencies are produced, and it is long before they are reduced to order. Among the Baila they are still to a considerable extent entangled. Thus my brothers and sisters are called my *bakwesu*, but that term is not limited to the children of my own parents: it extends to the children of my father's brothers and to the children of my mother's sisters. With descent through the mother only the children of my mother's sisters would belong to her clan and bear her totem. The children of my father's brothers if they be not, as they might be, also children of my mother's sisters, do not belong to her clan; but in the family, which counts descent through the father, they are recognized as brothers and sisters. The case is different with the children of my mother's brothers and those of my father's sisters. These, whom we should call cross-cousins, are recognized, and these alone, by the Baila as cousins. As such, according to clan-rules, they may marry one another, if of appropriate sexes, because they do not belong to the same clan; and they probably were once regarded as the proper persons to intermarry. Consequently the children of a man and those of his sister if of different sexes address one another as husband and wife, and they may still marry. But in course of the sharpening *flair* of the Baila for

consanguinity such a marriage, though permissible, is now frowned upon. My mother's brother's daughter, who is also reckoned as a cousin, however, is forbidden as a wife, notwithstanding that we still address one another quite regularly and properly as 'wife' and 'husband'. The fact of such an address is witness to a bygone practice of marriage between the children of a woman and those of her brother.

There are other relatives between whom a similar address takes place. In the classificatory system of kinship the term grandfather or grandmother extends to all the brothers of the actual grandfather and their wives and the sisters of the grandmother. What is interesting is that a man addresses these collateral grandmothers, whether wives of a collateral grandfather or sisters of a grandmother, as 'my wife', and they in return address him as 'my husband', and on the other hand he also addresses his granddaughters and the wives of his grandsons as 'my wife', in both cases extending the word in its classificatory sense. Dr. Rivers, dealing specially with the facts of Melanesian society, has shown that there a similar usage testifies to the former rule that marriage was recognized between such relatives. The same rule still applies, or at all events is not wholly at an end, among the Baila. Our authors say that 'between me and my collateral grandmothers on my own side' (that is, the women to whom the classificatory system extends the term *grandmother*) 'there is no taboo; I address each of them as *mwinangu*, my wife, and may treat her as such'.[1] And they add: 'This is only an extension of the principle that my collateral grandfather's property is mine potentially; I may enter my grandfather's brother's village, spear his oxen or rob

[1] Smith and Dale, i. 339.

his fields with impunity'. In both cases the Ila man is entitled to anticipate a possession which the law will eventually confer on him. Unfortunately they have not thought it necessary to give actual pedigrees in which these marriages have taken place. After laying it down that the land belongs to the community and does not pass from one to another by death, and that what passes as inheritance is cattle, wives, slaves, and personal belongings, such as tools, spears, medicines, &c., they only think it necessary to say: 'In the case of the wives of the deceased, the patriarchal practice is followed, and a kinsman takes them to raise up seed to his brother'.[1] But something more than this must be implied in the principle that 'my collateral grandfather's property is mine potentially'. If it be mine, it is mine in my own right, by virtue of inheritance. They tell us 'that every freeman who dies has somebody who "eats his name"', that is to say, becomes his heir. But of details they do not give us much: they say, by way of illustration, that 'the widows of the deceased are taken, as we have said, by his heir. Or if there are many he may take three, the deceased's nephew one, and a son one. In the latter case, of course, he would not inherit his own mother. The deceased's mother's people have the right to one of the wives.'[2] The fact of course is that 'the patriarchal practice' referred to and the inheritance of wives are two distinct things. The 'patriarchal prac-

[1] *Ibid.*, 390.

[2] *Ibid.*, 390, 391. Note that his mother's clan would be the clan of the deceased, and the members of it would have contributed to the original bride-price of these widows. Among the Thonga this is expressly put forward as a ground of claim (see Junod, i. 207). Among other Bantu tribes it was probably looked on in the same light; but whether there was any definite rule we cannot say.

tice' is well known in Africa; but it can only take effect when the husband dies without issue, whereas the inheritance of wives here referred to comes into force whenever a married man dies leaving issue who will preserve his name and ancestral cult, and will thus free his widow to become the inheritance of some other man who as his heir may have a claim upon her. Such a wife in a polygynous community may be quite young, and it is only the young widows who are thus inherited. Elderly women usually find refuge in a son's household.

Among other Bantu peoples similar relations exist between the nephew and his uncle's (his mother's brother's) wife. On the shores of Delagoa Bay a Thonga nephew addresses his uncle's wife as 'wife', and is intimate with her during his uncle's life; though it is not quite clear whether marital relations with her can be actually established until after her husband's death. Then she is formally made over to him. If there be more than one widow and more than one nephew they arrange matters to their mutual liking, without always waiting for the husband's death to settle the question.[1] The Baganda practice seems to have been the same.[2]

With regard, however, to the relations between a man and his grandchildren, who if granddaughters or wives of his grandsons are addressed, among the Baila, as 'my wife', we are told expressly that 'This does not now mean that I may marry them or that I have any rights whatever over their persons'.[3] But it does at least imply that such rights were once recognized.

[1] Junod, *Life of S. A. Tribe*, i. 212, 228, 255, 257. See also *id.*, *Baronga*, 77.

[2] Roscoe, *Baganda*, 129, 121.

[3] Smith and Dale, i. 321.

The advance of civilization has outrun the changes of vocabulary necessary to give expression to it. The grandmother still addresses her grandson as 'my husband' and her granddaughter as 'my fellow-wife'.[1] She too preserves in her speech an earlier condition of things which has passed away. Indeed, the Ila tongue, emerging while the people were still in the full classificatory stage, comprehends only the means of expressing two generations above and below that of the speaker, and the relationships which were proper to the stage of civilization in which it took shape, and has to be adapted as best it may to the growth of practice following on wider knowledge, and consequently a more exact conception of human relationships. In any case it follows with halting steps the advance of culture. This is a phenomenon by no means rare, and one that has analogies everywhere in the lower culture in the list of prohibited degrees which supplement the rules of exogamy. Among the Baila, the more remote generations are expressed by a repetition of the alternate terms 'grandfather' and 'father', or 'son' and 'grandson'.

The history of the advance of culture in these lower stages is a slow succession of steps by which a society organized on the classificatory basis of kinship gradually breaks away from that basis to build up a new system corresponding to a more accurate appreciation of fact. So slow is it that it often appears to be going back on its old tracks. The conversion of matrilineal to patrilineal descent often deserts the sure ground of physiological fact to flounder in a legal fiction. To comply with social requirements and to provide issue

[1] *Ibid.*

for a man who has not himself begotten children to continue the worship of ancestors it authorizes him to count as such children who certainly—obviously—cannot derive their origin from him. The adoption of children has many motives. It enables a man or woman to fill the void created by the loss of a child, and so to provide for the satisfaction of a human call for affection, or for the preservation or increase of the strength of a family or clan, or even of a tribe, both of these motives being necessitated by the circumstances of a people in a semi-savage state, surrounded by foes or compelled to hunt wild animals for food or clothing.

Fosterage no doubt fulfils some of these purposes. In later times and other lands it is used to safeguard young lives exposed to the incidents of warfare; and like adoption it creates an artificial kinship, the milk-tie, as it was called, being held very sacred. In earlier times it may have been applied by a clan which acted on the communistic principles of archaic society, and then it would be with difficulty distinguished from adoption by the tribe or clan. Adoption is in any case the creation of an artificial kind of kinship, a social, not a consanguine kinship. Men had not yet learned to distinguish social from physical kinship, and it served them on their way to a true kinship. With that once attained it has gradually sunk out of sight in most communities, though in some it is retained as a subordinate and relatively unimportant kind of kinship. The accumulation of pedigrees and their meticulous examination in every tribe under research are the only sure way to ascertain exactly how far that tribe has progressed towards true kinship.

Here I must bring these remarks to an end. I fear

you will think them already far too long. What I have tried to do is, however imperfectly, to indicate the great interest that the social polity and regulations of these Bantu-speaking tribes have for the student of social evolution, and the contribution the study of them can make to the history of society and of civilization.

I cannot omit to acknowledge gratefully my indebtedness in the preparation of the foregoing pages to the counsel and assistance of Dr. William Crooke, Dr. W. H. R. Rivers, and Dr. R. R. Marett, whose willing and friendly help on various points has been most valuable.

THE ROMANES LECTURE

1908

The Optimism of Butler's 'Analogy'

BY

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CANON RESIDENTIARY OF ST. PAUL'S

DELIVERED

IN THE SHELDONIAN THEATRE

JUNE 13, 1908

1908

THE OPTIMISM OF BUTLER'S 'ANALOGY'

The great and memorable statesman who devoted the overflowing energies of his leisure hours to the delivery of the first Romanes Lecture consecrated all the force of his last years of life, after his public career was closed, to an effort at recalling the attention of the world of thought to the significance of Bishop Butler.

He had grown to intellectual stature in the days when the influence of Butler had been for Oxford a sacred and inspiring inheritance. It stood for all that was manly, massive, and profound. It entered into the character and the life, as an abiding possession. 'About this time,' says J. H. Newman in the *Apologia*, 'I read Bishop Butler's *Analogy*, the study of which has been to so many, as it was to me, an era in their religious opinions.' That is a judgement characteristic of the time—a judgement which Mr. Gladstone would have adopted with whole-hearted ardour. And it was to him a deep and inexplicable wonder that such a judgement should have become strange and obsolete in the intellectual atmosphere of his own University. He could not tolerate or forgive the dismissal of Butler from his place of honour in the Philosophical School: nor could he understand how the younger generation could have suffered him to lapse out of their intellectual horizons. Indignantly, he toiled to repair the wrong. The weight of eighty years could not hold him back. To the very last moment of his working life, before he passed under the bitter discipline of pain in the very antechamber of death itself, he nursed the unconquerable hope, and brooded over the cause to which

his soul was committed. He gave us an edition of Bishop Butler which for the first time made his works presentable and attractive. He edited; he assorted; he prefaced; he added subsidiary studies. He offered us the opportunity of reconsideration. He challenged us to say whether we were prepared to let the great tradition die.

That challenge has been made, as yet, in vain. It has roused no concern; it has evoked no new examination of Butler's claims to philosophical importance. His work remains still outside the current of living speculation.

Is it worth while, then, to go back on an issue that has been decided? The case has been made with incomparable force, under unique conditions of power and pathos; and the verdict has been adverse. Who can be presumptuous enough to repeat an experiment which has received already such an august and final dismissal?

No one, indeed, would dare it, if it was a matter which depended on personal qualifications. But that is, mercifully, not the case. The conditions which determine the doctrine and the concentration of the intellectual interests of an Age lie far beyond the range of personal influence. They lie back in the secret motions of organic growth; in the subtle processes of mental transformation; in the massed and manifold experiences which go to the creation of a social speculative temperament. There is a structure of living thought for ever in making, through infinite reaction on its environment, and in touch with a special atmosphere. To it, individuals are but accidental. It holds in itself its own principle of advance, and grows by the law of its own growth. Our highest function is to co-operate with its movement; to do our minute contributory work within its encompassing influence. We cannot force it. We know but dimly the springs on which it draws; the hidden source from which it derives its momentum. We can but lend ourselves to become the instruments through which it achieves its own peculiar process of intellectual assimilation.

And it is because there is so much in our immediate

situation which appears to me to be in sympathetic touch with the peculiar qualities of Butler's mind, that I am emboldened to believe that, by the ordinary and natural movement of thought, and not through any individual plea raised on his behalf, the moment is arrived in which he may, once again, be drawn into the central currents of our intellectual life.

But, if this is to happen, it can only be done through a bold and drastic abandonment of much that stands in the way of his recognition as a modern constructive force.

First, as we all know, the particular Controversy, in which he was mainly engaged, is wholly dead and done with. The Deist, with whom he was concerned, was the special product of a certain temporary stage of scientific development. He was the normal intellectual deposit of the great mechanical Sciences. Under the infinite elasticity of mathematical categories, Physics and Astronomy had given to man's apprehension of the Universe an amazing expansion. For the first time, he had grasped something of its appalling scale. Yet, even in his minute insignificance, he had the faculty to recognize the reign of intelligent Law; and in this intelligibility of Law, in this rational Order and Design, governing every part with mechanical accuracy, directing the whole according to a preconceived scheme, he saw the evidence of a God who answered to his own rationality. The Religion of the living heart, of romance, of pathos, of tragedy, might have to vanish, in face of this absorbing and abstract mechanism. Christianity ceased to have a meaning; because man's emotional life in the flesh, here on earth, had ceased to have any value. Such a life with its passions and its desires, its laughter and its tears, would not fall into mathematical categories. And it fled away into ashamed nothingness before the hosts that peopled the enormous heavens. But the God of Design and Purpose, who responded to the demands of pure reason, remained on His throne. Religion survived in the form of Deism.

So it might succeed in doing, in that brief moment when

Science was mainly mathematical and abstract in type. But the development that followed took an entirely novel direction. The Sciences of Life took up the running. Interest passed from mechanism to biology. And, with this change of interest, a wholly new scientific ideal began to dominate our intellectual imagination. It was the ideal of growth. Life was in movement. That was its fascination. It evolved; it changed; it pushed its advance; it acted; it reacted; it acquired; it assimilated; it strove and strained; it knew no rest. The closer men drew to this wonderful and stirring secret, the less were they able to abide contented with the motionless fixities of the more abstract mechanical formularies. The immanent reality of the Universe is not to be found in the cold exhibition of changeless, mathematical law, but in the infinite diversities of a living and growing organism. The Universe is a vast, dramatic experiment. At its base is volcanic energy, holding in itself infinite potentialities, which storm their way into gradual realization, and under the terrible processes of unceasing strife, by efforts which are often effectual by the very blindness of their insistent stress, work out their fitness to survive. Such was the picture which Science unveiled.

And in such a Universe, the poor Deist found no footing. After all, his Christian opponent, with his passion for life, his gospel of growth, his romantic emotionalism, his central Tragedy, his bloody struggle through Death to Life, was more in touch and tune with this new gospel of evolution, than he, with his abstract intellectualism and 'bloodless categories'. The rational Deist was harder hit than any one by the scientific developments of the nineteenth century.

And, with his disappearance, we may suffer the whole method of the controversy to vanish too. Superficially, it wore, always, a most unfortunate and repellent air. It looked so meticulous and arid. It was apt to feel like a mere 'tu quoque', which irritated even if it silenced. It developed the dilemma, 'Either accept my position,

or abandon yours'; and nobody was ever convinced of anything by a dilemma. Its outward appearance wholly belied the real constructive grounds which lay behind it. And these can only be seen in their full worth by sweeping away the dialectical superstructure which hides them from view.

For, of course, the reading of Butler could never have made an epoch in anybody's life, such as Newman typically felt it to be, if he had actually rested his case on what W. H. Simcox named the 'argumentum ad horribile'. The Tractarians were the last people who would have been deeply moved by a logical acuteness which simply convicted the Deist of having as difficult a cause to justify as any Christian. So long as that is all that we see in the *Analogy*, we have failed to account for everything that the name of Butler stood for with those whom he most deeply swayed.

What, then, is the secret of the profound impression that he made? It is this which we would try to detach and to rehearse. And, first, as an index of the influence he wielded, what can be more noticeable than the passage in the familiar Preface prefixed to the *Analogy* by Bishop Halifax, in which he traces to the quotation from the Son of Sirach the germ of the entire work? 'All things are double one against another; and God hath made nothing imperfect.' 'On this single observation,' the Bishop writes, 'the whole fabric of our prelate's defence of Religion is based.'

We can recognize, in this assertion, the temper and companionship with which Butler was associated by his friends.

There is no idea of attributing to him the dialectical success of a cynical Pessimist, impaling opponents on the horns of some futile dilemma. The 'argumentum ad horribile' is utterly ignored. Rather, his admirers were led to recognize his close affinities with that intellectual companionship which, under the sanction of the Solomonic tradition, devoted itself to the high service of our Lady

Wisdom, its Mistress and Queen. There, in that brave and confident movement, in which Hellenic width of outlook was combined with the practical securities of the concrete Hebraistic mind, they recognized the mould in which Butler's thinking was fashioned. And, in this recognition, they witness to the breadth of scope, the wide horizon, the confident patience, the delicate appreciation of graduated purpose, which they associate with his name.

For, indeed, this phrase from the Son of Sirach is the typical expression of the ancient optimism which saw, everywhere, the evidence of that Wisdom which 'goeth from end to end, and sweetly ordereth all things'. It belongs to a school of thought which is supremely sure of man's capacity to enter into his intellectual heritage, and to move freely in that large air. It is not the preacher of vanity and agnosticism with whom we are concerned. The note struck is full of hope, and of assurance. It tells of a Wisdom of God, who invites all men to share in her riches—calling to them at the corners of the streets, in the chief places of concourse, in the opening of the gates: 'For she goeth about seeking such as are worthy of her, showeth herself favourably unto them in the ways, and meeteth them in every thought' (Wisd. vi). 'She preventeth them that desire her, in making herself first known unto them. Yea, she is easily seen of them that love her, and found of such as seek her. For Wisdom is more moving than any motion: she passeth through all things by reason of her pureness.' 'For in her is an understanding spirit, holy, one only, manifold, subtil, lively, clear, loving the thing that is good, kind to man, steadfast, sure, free from care, having all power, overseeing all things, and going through all understanding, pure, and most subtil spirits, in all ages entering into holy souls, and making them friends of God' (Wisd. vii).

Was there ever a nobler and purer manifestation of the passion for Intellectual Truth? Did optimistic belief in human faculties ever go beyond this strong assurance?

And Butler seemed to his fellows to belong to this company: to hold their faith; to be transfigured by their vision. In all that he wrote, he was looking at Nature with their eyes, and worked in the magnificence of their impulse. He raised his whole fabric of defence on their basic thought of a comprehensive and delicate wisdom which 'setteth all things in balance', 'double one against another.' He was fascinated by their portrayal of a world that was ordered throughout, under the secure certainties of unfailing law; in which everything was measured, placed, ordained, established, by virtue of infinite relationships that bound it up into a Whole, which was continuous, rational, coherent. The closer we look into this literature of the Wisdom, the nearer we seem to draw to the inspiration that speaks to us in phrase after phrase of the *Analogy*, and to the temper, the mood, the judgement, the insight, which create its characteristic atmosphere. As we ponder over the old refrains, we seem to catch Bishop Butler at work; we feel ourselves to be inside the process of thought by which he arrived at his special and dominant formulae. We can see how he absorbed their far-reaching justification of a world in which 'All the works of the Lord were good'—'good,' that is, in their place; at their season; at the last: good, if we could only understand their purpose. 'None can say, What is this? wherefore is that? for at time convenient they shall all be sought out. The Lord seeth from everlasting to everlasting; and there is nothing wonderful before Him.' So the Son of Sirach wrote of old. And can we not hear Butler repeating it after him? Did he not take on his own lips the strong resolution of this Son of Sirach: 'Therefore from the beginning I was resolved, and thought upon these things, and have left them in writing. All the works of the Lord are good: and He will give every needful thing in due season. So that a man cannot say, This is worse than that: for in time they shall all be well approved' (Ecclus. xxxix). 'All these things live and remain for ever for all uses, and they are all

obedient. All things are double one against another: and He hath made nothing imperfect. One thing establisheth the good of another: and who shall be filled with beholding His glory?' (Ecclus. xlii).

Surely Bishop Halifax has read Butler aright. The echoes of these announcements reverberate throughout the *Analogy*.

And the special phrase, that he has selected as typical, has a peculiar bearing upon Butler's own speculative mood. 'All things are double one against another.' It suggests that not only does the world offer the spectacle of unbroken and changeless Law; but, always, there is a sense of repetition in the sequence. The same rhythms reappear, as the mind passes sweetly from end to end of the long order. Again and again, Creation follows a Leit-motif; repeats a phrase; recurs to some normal programme. There are methodical formalities which lie at the base of all the measureless variety of effects; and these are recaptured, by the imagination, at each stage, on every level, in each department, of life. It is as if Nature had that delight that was so characteristic of Beethoven, of developing all the fertility of variation that can be wrung out of a single simple theme. Wherever you pass, throughout these infinite gradations of natural development, you seem to be reiterating the one formula which expresses the innermost secret of all growth: 'First the blade, then the ear, then the full corn in the ear.' Materials change; possibilities vary indefinitely according to the level of the domain with which you may be concerned; but something in the method is ever identical. In each new experience, you find yourself on familiar ground. A resemblance holds; a memory haunts; a harmony links; a note is struck of association and similarity.

'All things are double one against another.' So the Son of Sirach said. And so, most certainly, Butler deeply felt. His main strength comes out in his exhibition of the intense and intimate familiarities which recur in

the working of the Divine Purpose, wherever you encounter it. It retains always the same style ; it displays always the same mind ; it holds fast to its own identity, under every variety of condition and circumstance. Always, the like effects follow from the like causes. Always, the contrasted departments of activity reveal a strangely exact parallelism in their typical development.

So he delights in noting ; and in this it is good to remember that we are on the traditional Gospel ground. We are travelling along the lines given us by Christ Himself. For we are but repeating, in a scientific form, the reality declared by all our Lord's Parables. These Parables, as we know, are not allegories. They simply interpret the law of life on the one plane by the law of life on another. It is not a matter of two laws that can be compared ; but of one and the same law, acting in two directions, on different levels, through diverse material. Seen on the earthly plane, acting through physical material, the law of life manifests exactly the methods under which it works in the Kingdom of God, through spiritual instruments.

And, as with the Parables, so, also, it was with all the activities of our Lord. If He concentrated His personal pressure on the sick body of one who had faith to admit His will into action, it rose and walked. If He concentrated the same personal pressure on a receptive soul, its sins were forgiven. That which happened in the one case was the same as what happened in the other. That which accounted for the one would equally account for the other. 'For all things are double one against another.'

Such is the truth delivered to us through the Gospel Record. And Butler had won firm hold of this dominating thought ; and so it is that, under his direction, we find ourselves moving along a Universe which is an organic whole from end to end ; and, ever as we shift our perspective or change our level, we become aware, by his help, of one and the same underlying secret.

The same mind discloses itself ; the same presence greets us ; the same face looks out at us. This is the great principle of Analogy, by which (in the words of Bishop Halifax) ' he first inquires what the constitution of Nature, as made known to us in the way of experiment, actually is. And, from this, now seen and acknowledged, he endeavours to form a judgement of the larger constitution which religion discovers to us.' The emphasis so unhappily laid by the argument on the correspondence between objections and perplexities in the one case and in the other, obscures, by its dismal repugnance, our apprehension of the larger imaginative and constructive conception, on which the apologetic ' tu quoque ' really rests. The correspondence in the character of the difficulties becomes for Butler an additional corroboration of his positive speculation. And it is this positive speculation which gives him his position as a thinker ; not the merely incidental value, whatever it may be, of the minor controversial retort. For the force of the retort depends entirely on the primal conception of the intimate and essential correspondence that gives continuity to the two spheres of experience—a continuity which is recognized on its own account, and for its own impressive significance, quite apart from the accidental and additional confirmation of it which may, possibly, be derived from the discovery that, not only in its stable and elemental appeals to our intelligent confidence, but also even in its temporary obscurities, the same law of resemblance can be detected. No doubt, it is something to recognize that, even in these disagreeable misadventures, ' all things are double one against another.' But that is but a little or partial incident by the side of the splendid affirmation of universal coherence. ' Surely, it is of importance to learn,' says Bishop Halifax, ' that the natural and moral world are intimately connected, and are parts of one stupendous whole or system.'

The impression, then, made by Butler upon those who understood him best was that of a constructive and organic thinker. They felt the parallel between him and the

Wisdom Literature. And as we note how instinctively the ancient phrases and terms reappear in his writing, we can be sure they were justified in doing so. But he, also, himself, by direct references to the influences under which he acted, implicated himself in a like alliance. For it was Origen, as everybody knows, who suggested to him the lines on which the *Analogy* runs. And the very sound of his name, as an ally, should have made it impossible for us to allow the Bishop to disguise himself as a sceptical pessimist, parading the depressing defects to which our reason has to submit. Origen's mind was architectonic. He built for knowledge a noble pleasure-house. He was optimistic to a fault. His range was immense. His power and wealth of imagination swept over the whole field of knowledge with unflagging energy. In him, all experience was drawn together under the mastery of a single Divine Purpose, into organic integrity, under the assimilating control of the Spirit, according to the methods of vital growth. He laboured to expand the scope of our speculation over the widest horizons, so as to embrace life in its richest fertilities, in its inexhaustible fullness. And he trusted to attain this magnificent consummation by confident use of the inspired and imaginative reason, which could, by mystical synthesis, transform and transcend the limitations of a narrow logic. And this is Butler's master. This is the source of his inspiration. It is under the influence of the famous phrase which the great Alexandrian supplied to him that the two worlds of Nature and Grace, of Experience and Spirit, of Reason and Revelation, are seen to be of one piece, of one type, of one purpose, illuminated by correspondences, interpreted by reiteration of a common theme, knit together into coherent sequence by kindred analogies, and delicate refrains, and responsive corroborations, and intimate resemblances, and recurring parallels.

Let us listen to his own weighty exposition of this prevailing theme. Cumbrous it is, and heavy-footed; the language strains under its load; its structure builds

itself together by efforts that are apparent and undisguised; the colour and tone are subdued. We may feel, perhaps, the force of Walter Bagehot's jibe that no one would know from reading the *Analogy*, that the earth was not a square coal-pit. The arguments would all apply equally well.

Yet, in its very sense of effort, the passage has its literary effect. It conveys to the reader the bulk and volume of the over-mastering thought.

However, thus much is manifest, that the whole natural world and government of it is a scheme or system; not a fixed, but a progressive one; a scheme in which the operation of various means takes up a great length of time, before the ends they tend to can be attained. The change of seasons, the ripening of the fruits of the earth, the very history of a flower, is an instance of this; and so is human life. Thus vegetable bodies and those of animals, though possibly formed at once, yet grow up by degrees to a mature state. And thus rational agents, who animate these latter bodies, are naturally directed to form each his own manners and character, by the gradual gaining of knowledge and experience, and by a long course of action. Our existence is not only successive, as it must be of necessity; but one state of our life and being is appointed by God, to be a preparation for another; and that, to be the means of attaining to another succeeding one: infancy to childhood; childhood to youth; youth to mature age. Men are impatient, and for precipitating things; but the Author of nature appears deliberate throughout his operations; accomplishing his natural ends by slow successive steps. And there is a plan of things beforehand laid out, which, from the nature of it, requires various systems of means, as well as length of time, in order to the carrying on its several parts into execution. Thus, in the daily course of natural providence, God operates in the very same manner as in the dispensation of Christianity; making one thing subservient to another; this, to somewhat further; and so on, through a progressive series of means, which extend, both backward and forward, beyond our utmost view. Of this manner of operation, everything we see in the course of nature is as much an instance, as any part of the Christian dispensation (*Anal.* II. iv. 8).

After all, in this long-drawn labouring fashion, we are

in direct touch with the poets of high vision. We are in the very mood which broods over the 'flower in the crannied wall'. We are close upon the 'Presence far more deeply interfused'.

It was natural enough that Cardinal Newman should have drawn from this analogy between two separate departments of God's work, the conclusion that 'the less important system is economically or sacramentally connected with the more momentous system'. For the sacramental conception of reality is, simply, the concrete expression of the law that 'all things are double one against another.' The physical reproduces the secret of the spiritual. The same ultimate verity realizes itself in a single act, under a double form. It is a matter of indifference under which term it is expressed; for the actuality is identical with itself on either level, in either sphere.

This sacramentalism agrees with what is known of Butler's ecclesiastical tendencies. But it is curiously characteristic of Cardinal Newman to have discovered in this sacramentalism which he learned from Butler a confirmation of his own boyish belief in the unreality of material phenomena. For this is the exact reverse of the consequence which Bishop Butler drew from his analogy. It is in direct contradiction with the impression under which he arrived at it.

And it is this that I desire to emphasize, with all the strength at my command. For it touches the very root of the matter.

Butler rested his whole argument upon the immediate and unquestioned reality of material phenomena and upon the validity of human experience. There, in the solid facts as they were felt, lay his ultimate appeal. They were his standard of certainty. They supplied him with his canon of secured knowledge, through which he could venture to make an advance towards other and higher regions which were more remote from experimental certification.

His entire scheme starts from this initial assumption. He is absolutely sure that we can observe facts, so that they are really known to us. And he prepares to argue from these common facts of experience, known in the way in which we act upon them in the ordinary pursuits of daily life, to others that are like them, which belong to the region of natural and revealed religion. He is convinced that there is a certain department of the divine government which comes, now, under our view. We are in possession of it, in our degree. We cover it, more or less. We understand some of its method and use. And it is because this present experience is so sure and real that we can trust the abstract reasoning which attempts the treatment 'of the larger and more general government which lies beyond our view'.

Yet, to our dismay, Butler disguises this, his robust confidence in experience, by selecting for it the most unlucky title that he could possibly have chosen. He gives to this effective certitude the nickname of 'probability'. And the name has haunted his reputation. It has left upon the world's casual memory the impression that he had no solid intellectual ground to offer us; and that he invited us to stake our souls on a chance. He figures, in popular imagination, as the respectable grey-haired old confederate in the crowd, who induces the by-stander to take the odds on the hidden pea. He himself uses the unfortunate metaphor of stakes or odds at one moment in the argument, where he is illustrating his point from common experience. And, always, the word probability evokes the thought of dialectical ingenuity, rather than of massive reasoning. It is the Apologist that it recalls, not the Thinker. We feel, as we start off on an estimate of the convergent probabilities, as if we were to be captured by craft, drawn by subtle complications into a position for which we shall not be able wholly to account. Each separate bit of the evidence will be too weak to bear the strain of the great conclusion. Yet the accumulative effect of the inconclusive premisses will

compel us to assent to something more than they actually warrant. So we foresee; so it happens. We are sucked along. There is no precise moment at which we can pull up, and refuse to go further. We have no objection that we can make good. We cannot deny the pressure of the accumulation. Yet we have no instrument by which to test its exact validity. This type of process lands us in a discomfortable temper in which to face the Eternities. None of us like it. And it is this temper which is associated with Butler's argument from probability.

Now, it is difficult to imagine any temper so remote from what he intended to evoke. He is, in reality, appealing to the downright common-sense certitude with which the plain man accepts solid facts. He proves this by bringing as an instance of what he is thinking of, the expectation that the sun will rise to-morrow, and be seen, when it is seen at all, in the figure of a circle and not of a square. That expectation rests on probability, says Butler. But that does not mean that the plain man is uncertain about the issue. To him, the fact that the sun is sure to rise is a type of all he means by certainty. It is for him the least improbable thing that he can think of. He cannot bring himself to doubt it. He would stake his life on it. Sun-rise, sun-setting—these embody the fixed immutabilities of Nature; they stand for the undeviating persistence of Physical Law; they are the fundamental basis on which he builds his experience as on a rock.

But why, then, identify this certitude with probability? Why call it by a name which so strongly belies its character?

Because Butler wants to drive it home to the plain man, that the convictions and the experiences on which he gaily and confidently grounds his most familiar actions are of a character which does not admit of logical proof. Tried by the standard of the metaphysician, they are mere probabilities. Yet they include the deepest motives

of our being. They are sufficient to justify our most vital decisions. We fall back on them with a sense of absolute security. We act on them without a fear. Yes! and we are perfectly right, Butler would say. In all practical affairs we have no other way of acting.

And Religion is a practical affair. Religion is a problem of action. It is no metaphysic; it is a life. As action, as life, it conforms to all other types of life and action. It finds its certainties (that is) in what the metaphysician would condemn as probabilities. Religion is asking no more of you than your daily common practical experience does, when it invites you to trust to convictions that you cannot prove by syllogisms. It simply asks you to carry into its domain the same practical temper which avails you so well in all your earthly affairs.

Now, we can see the immense significance of this firm reliance on ordinary experience at the moment when Butler wrote. For it was the moment at which Natural Science was becoming the norm of certitude. It was beginning to assert the dominance that we know so well to-day, in determining the conditions which reason and imagination are prepared to accept as credible, and the certainties to which conduct is ready to conform.

And Butler, by his confidence in experience, has already struck up an alliance with Natural Science. He has drawn it all over to his side in this matter of probability. For Science is merely an extension of this ordinary experience of ours over an immense area, by means of organized research into the multiplicity and variety of facts. And, if so, it submits to all the usual conditions of our practical experience. It depends on truths which it takes for granted. Its strongest certitudes are incapable of proof. They are what the metaphysicians would term probabilities. The real existence of its facts; the validity of our impressions of the facts; the value of convictions based on expectation, and derived from sheer force of habit and association; these are, for Science, its primal grounds, for which it offers no verification. It can only

appeal to its own practical security of belief. On this it stands, and stands effectively. It ignores the metaphysical difficulties. They simply do not touch or affect it. It goes on, as if they were not there. And it is absolutely right to do so. It is dealing with facts ; and it must take the facts as they are. It cannot, in its character as Science, go behind them, or vex itself with the preliminary problem, how there came to be any facts there at all for it to handle ; or how it became aware of them and of its capacity to deal with them.

Only, if this is its own practical method of arriving at certainty, it cannot deny the right of Religion to use the same method. For Religion is a Science, a Science of fact. It claims that certain conditions are present and active, here and now ; that certain things happen ; that certain powers are at play ; that certain possibilities are actually open ; that a certain contact with the facts wins a certain response ; that certain events, in this world of spiritual fact, have a real and direct bearing on man's life and behaviour. God has done certain things. To experience what He has done is Religion. These facts of the spiritual world are as coherent and solid as the facts of the natural world. And they are to be known in the same way. The principles, methods, and rules which hold good in the natural world will hold good here also. For both worlds are on the same lines. 'They are double one against the other.' Trust the same methods by which you have organized your natural experience, and they will justify themselves in this other department. Did you act there on gathered hints, on dim suggestions, on expectations, on tentative experiments, on implied correspondences, on a variety of converging probabilities which only grew into certainties as your experience took them up, and made ventures upon them, and found that, by the venture, it advanced ? Is that the invariable type of your activities in contact with facts, in your natural existence ? Well, then, why be surprised if you have to repeat exactly the like process in Religion ; if here, too, you have to feel

your way forward by hints, and suggestions, and experiments, and expectations, and probabilities? God is the same God, at whatever level of life you encounter Him. And always He will guide you by His eye, and not, as if you were a mule, by bit and bridle. Religion is no exception to what you already know so familiarly: it follows the same rule.

So Butler continually argues; and all the force of his mind comes out in this splendid confidence that he has in facts, in experience, in the validity of our faculties. He was no metaphysician. We feel this in the chapters on the Future Life, and on Necessity. He is here at his weakest. He fails to convince. He is not in his true atmosphere or element. He comes to himself, and to his full power, when he is flinging aside all the metaphysical problem which underlies life, as freely as the plain man does in practice, in daily experience, in science. Butler has no desire to taunt, when he convicts men of acting on probability. Far from it! He desires to emphasize the authoritative and justifiable character of such evidence: for, indeed, he needs it for his own purpose. He wishes to lend to the plain man in the street, and to the scientific man in the laboratory, his own robust assurance, his own unqualified belief, that in refusing to go behind the evidence and to question its validity, they and he were utterly and entirely in their right.

'It is not my design,' he says, 'to inquire further into the nature, the foundation, and the measure of probability, . . . or to guard against the errors to which reasoning from analogy is liable. This belongs to the subject of Logic, and is a part of that subject which has not yet been thoroughly considered. Indeed, I shall not take upon me to say how far the extent, compass, and force of analogical reasoning can be reduced to general heads and rules, and the whole be formed into a system. But though so little has been attempted in this way, by those who have treated of our intellectual powers, this does not hinder but that we may be, as we unquestionably are, assured that analogy is of weight, in various degrees, towards determining our judgement and our practice. . . . It is enough to the present

purpose to observe that this general way of arguing is evidently natural, just, and conclusive. For there is no man can make a question but that the sun will rise to-morrow, and be seen, when it is seen, in the figure of a circle and not of a square' (*Anal.*, Introduction, § 7).

This general way of arguing is eminently 'natural, just, and conclusive'. So he judges out of the heart of his buoyant optimism. Was there ever a firmer note of cheerful assurance in things as they are? It does not signify in the least that the logical justification lags hopelessly behind; that, indeed, it is far to seek; that the metaphysician is discharging all his artillery, with deadly precision, against the position taken, and is riddling it through and through. Butler does not care, any more than Physical Scientists care to-day, for the merciless demonstration of the futility of their primary grounds. They are convinced, as he was, that, whatever may be said, their way of arguing is eminently 'natural, just, and conclusive'. They would say with him, and with all the multitude of men who are bound to rely on the immediate verdicts of uncritical experience: 'Though so little has been attempted, in the way of proof, by those who have treated of our intellectual powers, yet this does not hinder but that we may be, as we unquestionably are, assured, that analogy is of weight in determining our judgement and practice.'

This confidence of Butler's in the verdict of our faculties never fails him, even in that portion of his argument in which he is exhibiting their limitation. Yet here again, as so often, he succeeds in disguising this confidence by the stress that he is forced to lay on the fact that the scheme, whether of Nature or of Revelation, to which they are applied, is a scheme most 'imperfectly comprehended'; and, for that reason, removed out of their judgement. He presses this argument very hard; in a way, no doubt, that reduces the range of the faculties to a very limited area. But, still, this limitation is never due to distrust in their capacity. The primal authority both of Reason and of Conscience is absolute. No Reve-

lation from God can possibly contradict or override either: for they are the only channels through which a Revelation can reach us. It is impossible to use stronger language than he does on this; and it is strange, indeed, that he should have been misjudged here :—

I express myself with caution lest I should be mistaken to vilify reason, which is, indeed, the only faculty we have wherewith to judge concerning anything, even revelation itself, or be misunderstood to assert that a supposed revelation cannot be proved false from internal characters. For it may contain clear immoralities, and contradictions, and either of these would prove it false (*Anal.* II. iii. 3).

Again :—

It is the province of reason and conscience to judge of the morality of Scripture, not whether it contains things different from what *we* should have expected from a wise, just, and good Being, but whether it contains things plainly contradictory to wisdom, justice, and goodness; to what the light of nature teaches us of God.

Now what is the just consequence from all these things? Not that reason is no judge of what is offered to us as being of Divine revelation. For this would be to infer that we are unable to judge of anything, because we are unable to judge of all things. Reason can, and it ought to, judge not only of the meaning, but also of the morality and the evidence of revelation (*Anal.* II. iii. 26).

And yet again, he reiterates with anxiety, while pleading our incompetence to judge the methods of Revelation :—

This argument is urged, as I hope it will be understood, with great caution of not vilifying the faculty of reason which is 'the Candle of the Lord within us': though it can afford no light where it does not shine, nor judge where it has no principles to judge upon (*Anal.* II. ix. 7).

For him, the limitations of our faculties are drawn from their knowledge, not from their ignorance; from their exercise, not from their impotence. It is not because the scheme presented to them baffles their power, that they own it to be beyond them. On the contrary, it is because they understand it; and, in understanding

it, recognize how much lies beyond what they now cover. They see what they see with perfect validity of judgement; and in seeing it, they see it to be the tiny portion of a larger pattern. They can follow the threads, until they pass out of sight. They are, as it were, looking, and they know it, at a little bit of a picture of which the rest is hidden by a curtain. They see that the colours and curves before their eyes are related to masses and harmonies behind the curtain. The arrangement of colours itself announces this. The curves and lines cry out for that which corresponds and balances. They cannot be understood for what they are, without, at the same time, bearing witness to that which would interpret them, if it were not hidden.

It is not, then, that our faculties fail us; rather, it is their triumphant certainty of apprehension which recognizes the partial character of what is disclosed. It is not the confusion and jumble of what is seen which causes the difficulty; but, on the contrary, its intense coherence, its infinite consistency, its convincing intelligibility. Butler therefore absolutely repudiates the Agnostic argument for our ignorance. If we were wholly without knowledge, we could not say that there was an unknowable world. It is partial ignorance, not total ignorance, from which he argues. For, indeed, 'total ignorance would preclude all argument for or against.' His position is that we know enough of reality to know that we imperfectly comprehend it. It is our knowledge which sets itself its own frontiers by virtue of what it already knows. It knows when it touches its limit; and it knows that what is beyond its present limit is of the same character as that which is within.

And, for that very reason also, Butler finds himself bound to reject the Positivist conclusion, which claims complete knowledge of that which falls inside those limitations. For that which is inside is bound up with that which is outside, as a part is in a whole; and, therefore, it itself cannot be judged and interpreted in isolation.

Not only the hidden portion of the picture, but, also, even that little corner of it which our eyes do cover, is therefore beyond our perfect comprehension. For no smallest part can be taken alone. So, out of our knowledge of the part itself, we learn our incapacity to fully estimate it.

Butler thus reaches his characteristic conclusion, that every possible act of knowledge reveals itself as being but partial and incomplete. He defies you to know even this world that lies within our human experience, without knowing something of the world that lies beyond it. For every atom that exists demands the entire Universe to explain it.

No doubt, this is the argument which he drives hardest. While, for instance, asserting the supreme authority of Conscience in moral judgements, he manages to withdraw from the range of its verdict all the particular incidents in the Old Testament that offend, by refusing it the right to pronounce until it knows the ultimate and determining issue. And this it cannot know, without knowing the whole of things in Revelation. Such an argument, so pressed, cannot carry conviction. But it is good, still, to observe that it is the grandeur of his conception of this large coherence in the unity of things, which allows him the use of this argument. It is the immensity of our inheritance which reduces us to silence. It is the splendour of the vision which humiliates, even while it exalts.

And, if he is robust in his optimistic estimate of our human faculties, he is just as dauntless in his outlook on human conduct and human history. And this is all the more noticeable, when we remember how his indignant soul, in its austere passion for righteousness, had nursed a wrathful flame against the thin moral superficialities and cheap benevolence of the literary coteries in Queen Caroline's Salon.

Butler had looked, with serious eyes, into the black abyss of sin ; he allowed no easy tolerance to blind him to the turbid disgrace of the story that man had made for

himself. He loathed the airy optimism which would not face the fact. Nevertheless, after solemn survey of the whole tumultuous disarray, he deliberately pronounces that all the positive evidence of the facts declares for the right. The underlying principles of Nature are always working for virtue, and against vice. Judged, as they should be, by their tendency, they tally with the verdict of conscience. The spectacle that is presented to us (he pleads) is of a situation in which these tendencies would go much further towards moral perfection, if they were not obstructed. The force for good is there, at work ; only it is hampered. If it were given a fair chance, virtue would verify its complete dominion over facts. It would win the whole field to itself. Just as reason has a tendency towards victory so that it will always win where the opportunity is offered it ; so there is an essential tendency in virtue to win, and in vice to be beaten. It follows that the positive energies of life have only to be redeemed from hindrances, in order for the ideal kingdom to be attained. Set free the moral forces now at work in human Society ; and what more would you need in order to realize the Messianic State ? The Ideal, therefore, is already ours in germ and tendency. In its progressive development lies our assured secret of final triumph. So we begin to take the true measure of this vast scheme of one progressive Ideal, moving ever towards its completion, until it embraces the whole sum of things. The ultimate goal is not different in kind from the life that is hid in us here. This life has but to be strengthened and released, and it will be fitted for the perfected state hereafter, towards which we are ever moving.

Here is optimism, indeed. And it is this intense and constructive soundness of his optimistic outlook upon conduct, which leads us, at last, to the cardinal word, so characteristic of the *Analogy*, and so typically charged with the spirit of Butler—the word ' probation '.

Probation ! Somehow, it has a weary and depressing sound. It carries with it to Saxon ears a touch of Latin

pedantry and Latin rigidity. It recalls unhappy apologetics, which labour to justify intolerable things by inviting us to suppose that they were all meant for our good.

Yes! There have been intellectual crimes perpetrated in its name. And yet, let us remember that this word, for all its doleful associations, stands for that indomitable optimism in man, which defies all misadventure. It is the expression of man's ineradicable conviction that the world exists for Good, and not for Evil; and that God will ever justify Himself, as victorious over adverse circumstances. Such a conviction, faced by pain and evil, and challenged by the heathen taunt, 'Where is, now, thy God?' bravely retorts by the word 'probation'. It is evil that has happened to us, and not good. We will not play with names, nor call foul fair. But, after all, the evil is there, only to be overcome. It summons us to a field of honour where spurs are to be won. It dares us to give warrant of our worth. In discipline lies the secret of all moral growth; and in hardship the happy warrior recognizes the patent of his nobility. So God asks us to co-operate with Him in wringing good out of evil. He calls upon us to learn a higher obedience, and verify a purer loyalty, through the refining fire of suffering.

So the Jew had answered long ago—the Jew whom Schopenhauer derides for his invincible optimism.

It was no dull affair, this probation, when it threw its meaning out into the splendid Drama of Job. It is not flat, and prosaic, and repellent, as it is poured out in page after page of vehement Prophecy. It escapes, in Isaiah and Jeremiah, far away from the suspicion of apologetic ingenuity, as it tells of the gold that is purged in the furnace, or of the elect servant, who is given over to pain and darkness, that he may emerge with new strength and with heart tested and proved, into the light of a recovered joy.

And once again, in our own day, it has testified to its poetic worth by becoming the ground-motive of one of the

very greatest of our Victorian Poets. Robert Browning, in strenuous revolt from Byronic pessimism, set himself to sing the optimistic Creed. And it was under the pressure of this insistent optimism that he found in the idea of spiritual probation the solution of life's darkest mysteries.

We owe it to his genius that the incredible feat should have been accomplished of putting Bishop Butler into verse. Possibly, this may account for some strain and stress in the versification. For it is Butler's favourite type of probation which Browning closely follows. It was Butler who, to justify the logic of probation, argued so convincingly for the possibility of training under one set of conditions a moral character fitted to act under another. It was he who especially gave to probation the ennobling conception of an endless Future, for which this our little day is but a momentary preparation. And this is the familiar theme of which Browning never tires. We are not to ask for perfection here and now? Greek statuary has said the last word on that theme. Old pictures in Florence have another gospel to deliver—the Gospel, not of Time, but of Eternity. Enough if here we just learn the use of the weapons and tools that we shall need hereafter. Enough if we serve our short apprenticeship, and emerge qualified craftsmen. Nothing need, of necessity, be realized on earth. Life is justified, if it has but given us time and opportunity for an equipment, which the Hereafter will make intelligible.

Things learnt on earth we shall practise in heaven.
For more is not reserved
To man, with soul just nerved
To act to-morrow what he learns to-day:
Here work enough to watch
The Master work, and catch
Hints of the proper craft, tricks of the tool's true play.
Earth changes, but thy soul and God stand sure.
He fixed thee mid this dance
Of plastic circumstance,

This Present, thou, forsooth, wouldst fain arrest :
Machinery just meant
To give thy soul its bent,
Try thee and turn thee forth, sufficiently impressed.
Thou, heaven's consummate cup, what need'st thou with earth's wheel ?

All the well-worn passages crowd into our memories.

And it was precisely this relation of Eternity to our probation in the fast-fleeting Present which gave to Butler his constructive power in his own day. The vastness of astronomical times and spaces had bewildered men's sense of proportion, as, for the first time, they apprehended the pettiness of earth over against that immensity of the heavens. The whole scale of knowledge had been widened ; and the immediate effect had been to lower the value of anything connected with the discreditable story worked out by humanity 'in an obscure corner of one of the meanest of the planets'. We all know that sudden panic ; that dismal shrinkage ; that shiver of scorn. Butler encountered it by expanding our human significance. He met the vastness of the physical scheme by disclosing the vastness of the plan of our Redemption. If it requires centuries to unroll the material development, it requires Eternity to complete our spiritual destiny. The Redemptive hope of man is a process, a progress, a growth, extending into the infinite future, far beyond the widest horizons that this surprising science ventures to unveil. And this tiny life here, that seemed to crumple up into nothing under the marvel of those appalling stars, after all, holds in it the secret of endless and immeasurable possibilities, transcending time. Here, in it, lies our probation. Here, in this dim corner, under the discipline of these brief moments, we can be tested for our fitness in a Hereafter which we cannot limit or define.

So he enlarged the religious values of life, to meet the heightened demands. He brought our spiritual story up to a level at which it could, courageously and with a

recovered self-respect, compete not ingloriously with the majestic revelations of Natural Science.

Probation then had, for him, no dull and tiresome associations. It did not speak of disciplinary pedantries. It told of the joy of a continuous growth from stage to stage of apprenticeship and initiation ; of gathering force ; of progressive capacities ; of daring adventures into the unknown ; of prophetic intimations ; of the sequence of life upon life, and advance from level to level, through many mansions towards a far-off Divine Event. It meant to him the moral training and equipment for a life of companionship in the transfigured Society, which was to be the consummation of all that draws men together into fertile brotherhood throughout all the long lives of their historic experience. It was of a piece with all that gave to this earthly life its peculiar delight, through its growth out of infancy into childhood, out of childhood into manhood. At every stage, we are under probation for another ; and it is this which gives to each stage its importance. In each we have the thrill of feeling that we are acquiring faculties which will have a use far beyond what we can yet imagine. Even in moving through the separate moments of human development here on earth, the poet's cry has its meaning and value :—

> Look not thou down but up !
> To uses of a cup, . . .
> The Master's lips a-glow.

And this thrill, this prophetic anticipation of unknown achievement, is to be ours, not only for our short space of existence here, but continuously, throughout our whole spiritual career. Religion carries forward the process which Nature has begun.

Let us rehearse his massive summary of this, his high conception. Slowly, as he beats out his thought, the very weight and compass of its movement acquires a certain grandeur of tone :—

It is most obvious, analogy renders it highly credible, that, upon supposition of a moral government, it must be

a scheme, system, or constitution, whose parts correspond to each other, and to a whole ; as really as any work of art, or of any particular model of a civil constitution and government. In this great scheme of the natural world, individuals have various peculiar relations to other individuals of their own species. And whole species are, we find, variously related to other species, upon this earth.

Nor do we know, how much further these kinds of relations may extend. And, as there is not any action or natural event, which we are acquainted with, so single and unconnected, as not to have a respect to some other actions and events : so possibly each of them, when it has not an immediate, may yet have a remote, natural relation to other actions and events, much beyond the compass of this present work. There seems indeed nothing, from whence we can so much as make a conjecture, whether all creatures, actions, and events, throughout the whole world of nature, have relations to each other. But, as it is obvious, that all events have future unknown consequences ; so if we trace any, as far as we can go, into what is connected with it, we shall find, that if such event were not connected with somewhat further in nature unknown to us, somewhat both past and present, such event could not possibly have been at all.

Nor can we give the whole account of any one thing whatever : of all its causes, ends, and necessary adjuncts ; those adjuncts, I mean, without which it could not have been. By this most astonishing connexion, these reciprocal correspondencies and mutual relations, everything which we see in the course of nature is actually brought about. And things seemingly the most insignificant imaginable are perpetually observed to be necessary conditions to other things of the greatest importance : so that any one thing whatever may, for aught we know to the contrary, be a necessary condition of any other (*Anal.* I. vii. 4–6).

Even in this great passage, we fall under Butler's unfortunate habit of throwing an air of depression over his most inspiring conceptions. For it is brought in to justify his assertion that 'God's moral government must be as much beyond our comprehension as his Nature government suggests' ; so that we omit to notice that our ignorance is, itself, the witness to our comprehension of the coherence of the entire Universe in one unbroken and

undeviating kingdom which spreads down from the Throne of God to the tiniest atom that falls within the range of Creation. Surely, such a conception ought to carry inspiration with it! Yet he disguises its greatness behind an awkward and melancholy phrase like that of 'a scheme imperfectly comprehended'. He might so easily lighten the effect of this depressing phrase by reminding us that, as the scheme would not be known by us to be imperfect unless we were capable of comprehending it, therefore our sense of its imperfection is the measure of our comprehension of its immensity. The stress of the argument, after all, is not on the melancholy fact that we cannot know more, but on the kindling truth that we do know so much. We are inside this scheme that we imperfectly comprehend. That is the great point. We are in actual contact with its reality; and that is why our knowledge of any single object in it cannot be rounded off and completed. If it could, it would prove that we were not knowing the object as it really is: for, in its reality, it cannot be cut off; it cannot be isolated; it cannot be detached from the whole sum of things. The knowledge that isolated it would be knowledge that falsified it.

I venture to repeat this, because it is through recognizing this special character of Butler's attitude towards knowledge that we understand why that in him which is apt to excite a peculiar despair is itself the note of his triumph. For every one is staggered to find Butler arguing that Revelation is full of the same perplexities as Natural Religion; and that Christianity is as imperfectly comprehended as Nature. Yet, if we follow up the lines of his constructive thought, we see, at once, that the very greatness of his conception forced upon him these conclusions. The imperfections that man encounters in his rise from the lower level to the higher will increase rather than diminish; for the rise in thought has admitted him into a scheme of yet vaster proportions than he had hitherto experienced. And, if vaster than the world already within his experience, then, also, it must be still more im-

perfectly comprehended. The part that falls under his comprehension bears a still smaller proportion than ever to the enormous whole. And the relationships by which it is bound up into the whole are yet subtler and more infinite than any hitherto under his ken. Far, far out of sight the threads pass ; far, far away beyond imagination the tendencies press. Man can recognize in them the evidence of their immeasurable reach ; and, therefore, he recognizes also that his actual capacity to cover with his knowledge even the corner of it which he can see is more liable than ever to correction from out of a world of which he is even more ignorant than he was of the other world to which his lower experiences belonged. Any rise in real knowledge must, then, involve an extension also in his appreciation of his own ignorance. Revelation, therefore, by virtue of its raising us to a higher level, will display more gaps, more interspaces of ignorance, more moments of baffling perplexity, than did Natural Religion. Christianity, by extending into infinitudes beyond our natural frontiers, will be more charged with bewilderment and uncertainty than Nature. In the one case, as in the other, the imperfections of our comprehension will be bound to recur ; and to recur with increasing emphasis, as we move upwards into contact with fuller Reality. Just because it is so far fuller than anything we touch on a lower level, therefore our relationship to it will be more partial and more limited. We shall be less securely aware of how the part stands to the whole, as our estimate of the whole that is out of our sight expands. Revelation, then, does not only fail to clear up the difficulties that Nature has presented to us already ; but, leaving them as they were, it adds many more perplexities of its own.

What, then, is the advantage of a Revelation ? For what has it been given ? Why should we care to add to our troubles ?

Butler's answer is as noble as it is inspiring.

Revelation is simply the call of God to man to 'Come up higher'. If man has shown himself faithful in few

things, let him have, as his reward, the fresh responsibility of showing himself faithful in many things. If he can gain five talents in one field, let him prove the like gifts in the higher task of ruling five cities.

This is the law of all spiritual promotion.

And this is the law by which Revelation justifies itself to those who, already, have found evidence for God in Nature. If there, 'mid this dance of plastic circumstance,' man has, in spite of imperfections in his grasp on truth, in spite of all the gaps and interspaces of darkness, yet had the heart and the brain to detect God at work, and to become aware of a vast scheme of ordered and rational good, within which he was to work, and by loyalty to which he was to be judged ; then, in response to that loyalty already proved, in recognition of that intellectual and moral insight, let him step up on to a higher plane of existence ; let him be admitted to a fuller vision ; let him be made aware of yet further action that God has taken on his behalf ; let him be brought up into touch with a yet more wonderful scheme of ordered and rational good, by which God has set Himself to redeem all this lower creation into harmony with that divine Consummation of all things in the mystery of Jesus Christ, the Beginning and the End, the Secret Source and the Ultimate Fulfilment of the Purpose and Wisdom which hold all in one.

If there is this fresh development, if God has taken this further action, then, man is under obligation to understand it. For it is a fact ; and facts carry with them responsibilities. They open new possibilities ; and to refuse to know what these new facts are, is to reject the possibilities opened. So man is laid under probation by a Revelation. To ignore it is to refuse the invitation to come up higher.

Yet the probation imposed by a Revelation will be harder, severer, than any other. It will stretch further the faculties of nerve and brain. It will involve a fiercer strain. For it will ask us to put out a fuller trust in

a God who is felt to be hiding Himself in a darkness deeper, often, than any through which Nature has led us. But the temper which held us true to that trust amid the dark vacancies in Nature is the very temper which, under yet stronger strain, will still hold us true to our trust, in the dark places which Revelation itself reveals to be so black. The venture that has been justified on the lower level can, now, justify a more heroic effort; and those who have come thus far on the road must not fear to go yet further. Their courage has so far been proved that it can afford to be set a heavier trial. 'To those that have, is more given;' only, if the finer opportunity is thrown open to them, it will not be at less cost than that which won the lesser prize. The risks to be run will not diminish, the labour and sweat will not slacken, because the reward is higher. Rather, as the Apostle taught us long ago, the discipline grows sharper, as the game passes from the corruptible crown to the incorruptible. The vine that brings forth grapes is, for its honour, pruned with the knife, that it may do yet better.

That is Butler's appeal to us to go forward through Natural Religion to Revelation. These are the motives to which he trusts. Could optimism go further? He grounds himself on man's strength; not on his weakness. He will have nothing to do with those who argue from man's blindness and Nature's darkness to the necessity for a Revelation to relieve us from impotence and to release us from despair. That is not in the least the way in which the arrival of a Revelation presents itself to him. For him, a Revelation enters in response to those who have eyes to see what Nature has to show them. The light of Revelation, according to his judgement, can only make appeal to those who have already found light on the lower level of natural experience. It enters, not promising to scatter what has been dark; for, indeed, it often leaves (as we find) that which had been dark as baffling as ever. Its main purpose is not to answer riddles that have proved insoluble; but to authorize, sanction,

reinforce, and carry forward, the light that already shines. It 're-publishes', in the language of the *Analogy*, the verities already held. It endows them with stability; it confirms; it reassures.

This is its first office: and then, secondly, to the light already found, it adds more light; according to the crucial law, that to them who have shall more be given. It opens out new spheres of spiritual experience. It carries man's knowledge forward on to fresh developments. It introduces him to further and fuller activities of God, set in motion on his behalf, for his deliverance.

And, for the apprehension of these new experiences, it asks for just the same moral temper and intellectual insight which have already proved their validity within the narrower frontiers. If these have been hitherto wanting; if Nature has offered to us only a scene of apparent disorder; if the perplexities inevitable in a scheme imperfectly comprehended have staggered our confidence; if we have not had the courage and the patience and the perseverance to detect and to follow the light given us in spite of all the obstacles that hindered its completeness; then, we shall be unequal to the strain of apprehending the Revelation. We shall be baffled by the same objections; we shall be tangled in the like bewilderment. For Revelation must approach us under the same guise and by the same methods. It cannot but make its offer on the same terms. For it, too, cannot but be 'imperfectly comprehended'. It, too, must be obviously incomplete. It will leave, therefore, a thousand issues unresolved. It will be content to prompt, suggest, invite, where certainty is impossible. It will offer partial evidence of just the same type and quality as that which is familiar to us on the plane of Nature. And, if we find it insufficient in the one case, it will seem equally insufficient in the other. In both, its effect will be disciplinary, probational. In both, it will test our moral nerve, and make demands on our spiritual resources. In both, we shall, if we are true to

the guidance given us, learn to be grateful for the gaps in our knowledge which testify to the far-reaching wonder of that eternal mystery which we can know only in part. In both, we shall thank God for the incompleteness which bears witness to the splendour of our high citizenship—for the 'fallings from us,' 'the blank misgivings' which tell of that far home from which we came and to which we return.[1]

[1] As we recall this strong and inspiring argument, we see how entirely it escapes from falling under the ordinary criticism of the *Analogy*, such as is given, in its most vivid shape, in the following passage from Mr. Bagehot's Essay on Bishop Butler:—

'Let us look at the argument more at length. The supposition and idea of a "miraculous revelation" rest on the ignorance of man. The scene of nature is stretched out before him; it has rich imagery, and varied colours, and infinite extent; its powers move with a vast sweep; its results are executed with exact precision; it gladdens the eyes, and enriches the imagination; it tells us something of God—something important, yet not enough. For example, difficulties abound; poverty and sin, pain and sorrow, fear and anger, press on us with a heavy weight. On every side our knowledge is confined and our means of enlarging it small. Of this the outer world takes no heed; Nature is "unfeeling"; her laws roll on; "beautiful and dumb," she passes forward and vouchsafes no sign. Indeed, she seems to hide, as one might fancy, the dark mysteries of life which seem to lie beneath; our feeble eyes strain to look forward, but her "painted veil" hangs over all, like an October mist upon the morning hills. Here, as it seems, revelation intervenes; God will break the spell that is upon us; will meet our needs; will break, as it were, through the veil of nature; He will shew us of Himself. It is not likely, surely, that He will break the everlasting silence to no end; that, having begun to speak, He will tell us nothing; that He will leave the difficulties of life where He found them; that He will repeat them in His speech; that He will revive them in His word. It seems rather, as if His faintest disclosure, His least word, would shed abundant light on all doubts, would take the weight from our minds, would remove the gnawing anguish from our hearts. Surely, surely, if He speaks He will make an end of speaking, He will show us some good, He will destroy "the veil that is spread over all nations", and the "covering over all people"; He will not "darken counsel by words without knowledge"' (Bagehot, *Literary Studies*, vol. ii. p. 83. Longmans).

It will now be seen that this passage starts on exactly the

It would be good, if time allowed, in order to complete our record of Butler's optimism, to touch on his large and liberal use of the analogy of remedial medicine in order to interpret the work of man's Redemption. His fondness for this analogy is a sure indication of his temper; since Remedy is nothing, if it is not optimistic.

For, first, it starts by flinging behind it all the dark problem of 'why' and 'wherefore'. It leaves all this out of account. It will have nothing to do with the question, why this, or that, man is born blind; or why the Tower of Siloam fell on these, and not on those. It is enough for it that the pain is there, and can be healed. Nurses, doctors, leave all else aside; and are absorbed with the hope that, at any rate, they may relieve and cure.

And then, secondly, the idea of Remedy is optimistic, because it assumes that the wrong cannot be meant; cannot be natural; is intended to disappear. Its entire work is based on the conviction that the structure and intention of the organism are sound; that health is the normal condition; that, if only the inner life can be set free to perform its proper functions, the cure will have been effected. Medicine can do nothing, except on this assumption of the inherent and ineradicable rightness of things. Butler's profound confidence in the inherent goodness of things leads him to cling to this illuminating parallel throughout all his treatment of Christ's mediatorial work.

This sure and sturdy confidence in the rightness and reality of facts enables Butler to push off the board a tangle of bewildering perplexities. How can God have given a Revelation, for instance, and yet left it open to

assumption which Butler repudiates. It supposes that the intervention of a Revelation is due to man's ignorance; and has for its purpose the removal of the doubts raised by Nature. But to Butler, Revelation is the reward given to man's knowledge; and its purpose is, not to solve old enigmas, but to lead him upward to new truths. Revelation offers to man this inspiring invitation: 'Thou hast been faithful in little. Be faithful also in much.'

mistake, abuse, corruption? Well, why not? He trusts man with splendid natural endowments, and yet takes the risk of their wreckage.

How can you believe that He would bring into play a Revelation which only the few would hear of, and which would have to wait centuries for its opportunities? Well, why not? He has filled earth with treasures and succours, which yet lie hidden century after century, and are only slowly and laboriously discovered and brought into use. He counts on human effort in the one case; why not in the other? Difficulty, struggle, doubt—these are our probation. Through them we have worked out our secular Civilization. Why should not the same methods be equally available in the spiritual sphere? Why should we isolate Religious development from the normal and natural and customary order of things? Why should we imagine for it some special and fantastic dignity, which would forbid it from conforming to our habitual experience?

Again and again, Butler's strong common sense keeps him true and realistic in this way. He is never on stilts. He enjoys common things. He keeps close in touch with things as they are. He goes along with a healthy cheerfulness, resolute in his determination to be loyal to the actual, and to demand no exceptional treatment for Religion or Revelation, as if they lay apart from ordinary human life. Their strength lies in their conformity to natural conditions. The closer their coherence with the common type of human experience and human history, the greater is their reality and the more convincing their evidence. Everything that is most familiar to us in our daily habits reappears in them. They work on the regular lines. That is why we believe in them. Even the very difficulties that recur do but corroborate our confidence by their normality and their familiarity. The two works of Nature and Religion mingle and fuse in one connective continuity of growth.

It would be interesting to follow the working of Butler's mind in detail: but enough has, surely, now been said to suggest how near and intimate is the mind of the man to our own intellectual situation.

For with us, too, as for him, the metaphysical stop is off. Metaphysics are in suspense. The five or six experts who still hand on the good tradition can be heard crying in the night to one another. But no one listens; and they alone understand each other, and carry on faithfully, in a tiny knot, the historic debate on the Existence of the Absolute. Let them hold on to their high faith. Some day their cause will re-emerge. It cannot be that man will ever surrender the heritage won by the heroic endeavour that opened with Plato and closed with Hegel.

But the Vision is not yet. And, in the meantime, we are all anxiously engaged in a debate on the lower plane. We are scientific. We are psychological. We are empirical. We are pragmatic. We are employed, eagerly, in seeing how much can be done without touching on the problems of the higher Logic. We accept the inherent paradoxes of the ultimate Reason. We do not propose to go behind its primary assumptions. We are satisfied with 'transcendental emotion', which allows for no problem, since it has, by its own inherent validity, solved it before it can begin. Or we are content with any formula which can verify its practical efficiency in adapting the facts of life to our dominant interest. Our entire thought is concentrated on Experience. It is the shaping, and the handling, and the assortment of the facts of human Experience with which we are concerned. Even Philosophy has withdrawn from its high *a priori* methods, and recognizes how intimately its task is set within the challenging limitations of common everyday experience. 'Experience is the beginning and the end of Philosophy,' says a recent philosophic writer. 'Philosophy takes its rise in experience. It is itself a feature in experience. Experience asks the question which philosophy has to answer. In

philosophy experience challenges its own validity. Experience is the subject-matter of investigation. Experience is the method of inquiry. The process by which we find out what experience means is itself a form of experience. To the philosopher his philosophy is an experience, i.e. his experience of what experience turns out to be. And this final experience of the philosopher, which is his philosophy, returns for verification to the experience of the ordinary man from out of which it arose' (Richmond, *Essay on Personality*, ch. i. p. 4. Arnold).

In that forcible passage we feel the intensity which the modern development of Thought has thrown into our direct, personal experience. There, or nowhere, we are in face of all that can be known. So we all recognize. And we shall do so with ever-growing directness. Metaphysic itself, when it comes again to its own, will do so by verifying, with a closer intimacy than ever, its inevitable inherence within the very heart's core of our common average experience.

And it is within this human experience of ours that Butler does all his work. It is our daily experience that he fastens on, clings to, accepts. For him, it holds the entire secret. He has no desire to go behind it, or beyond it. It is sufficient. It justifies itself. It supplies the standard to which reality must conform. It contains and reveals the main method by which truth discloses itself. He takes his ground on it. He starts with it. He ends with it, or with what it suggests and sanctions. We have but to examine, he thinks, the mode in which facts of daily experience commend themselves to us, and we shall be in possession of the conditions which determine the arrival of the Truth, whether through Nature or Revelation.

We have no power except through the facts. He distrusts profoundly, not reason, but the uninstructed reason—the reason that draws its knowledge out of itself. Reason has nothing of its own to draw upon. It is, itself, the faculty to know facts; and, in knowing facts, it carries with it its own guarantee. It knows them as they are

meant to be known. So Butler's appeal is ever from the reason uninformed by experience to the reason which has accepted the facts set before it—from the reason e.g. which decrees what a Revelation must involve, to the reason which will be content to understand what a Revelation, in fact, actually is. He will never refuse facts, nor ever leave them behind. At every stage the reason is recalled by him to the actual verdict of experience.

This may compel Butler, as it does, to enforce the strictness of the limitations under which reason works; for it cannot go beyond what the facts that lie within its experience will justify. And that experience is very partial. And the facts are imperfectly comprehended.

But the very limitations that he enforces are not imposed from without; nor are they incidental to some formal insufficiency of reason itself. They spring up out of the very nature of experience itself. They are asserted by virtue of the facts themselves, which, in being known as what they are, declare themselves to be but partially known. The limitations come, not from any defects in our intellectual organs, but from the evident and undeniable narrowness of the area over which they have, as yet, been exercised.

There is, therefore, optimism, still, even in the recognition of limitation. Our capacities only need the widening of their area of exercise, to prove themselves adequate to new knowledge. And there need be no limit to this expression of their experience. Life is a perpetual progress in experience. And our knowledge, therefore, has, before it the vision of limitless growth. In all this, Butler shows himself the friend of the scientific temper which has become the dominant element in the modern mind. His certitude is the scientific certitude in the sure value of facts and faculties, which is so victoriously robust that it can absolutely afford to disregard the criticism of metaphysics.

The limitations which he emphasizes are the limitations

which Science emphasizes, as the inevitable conditions of the confined area to which our petty human experience is confined; while the compensating promise of endless advance in knowledge has in it the very note of scientific confidence.

The overriding Authority, for which Butler pleads, is the authority with which Science makes such dread play—the authority of stern unbending facts, and of the urgent pressure of past action; the authority expressed through the famous phrase, 'Things are what they are, and their consequences will be what they will be;' while the qualifications and corrections which can be brought to bear upon the necessities created by the Past take the scientific form of Remedy, which accepts the facts, and empowers them to rid themselves of their own poison and to work out their own cure.

So, again, the whole theology of Rewards and Punishments is identified by Butler with the sequence in Nature of Cause and Effect, flushed by the influng transfiguration of a divine intention. Thus, at every point, he lays himself alongside of the scientific temperament, and tallies with its outlook.

In throwing this mystical intensity into the experiential presentation of the world which is given through Natural Science, Butler had behind him the support of the Wisdom Literature with which he was so intimately in alliance. For there, too, the Vision of Truth which was so ardently pursued was no high metaphysic of the Absolute. The writers use language of such spiritual exaltation that we fancy ourselves to be engaged in some Platonic communion with the Idea of Intellectual Beauty. This Wisdom 'is more beautiful than the sun, and above all the order of the stars. She is the breath of the power of God, and a pure influence flowing from the glory of the Almighty. She is the brightness of the everlasting light, the unspotted mirror of the power of God, and the image of His goodness' (Wisd. vii). Yet, when we ask what it is which so enthralls its possessor,

it turns out to be singularly concrete and near and practical. It is, he tells us, the power to 'know how the world was made, and the operation of the elements: the alterations of the turning of the sun, and the change of seasons: the circuits of years, and the positions of stars: the natures of living creatures, and the furies of wild beasts: the violence of winds, and the reasonings of men: the diversities of plants, and the virtues of roots: and all such things as are either secret or manifest' (Wisd. vii). Wisdom has shown him, moreover, that 'the principal things for the whole use of man's life are water, fire, iron, and salt, flower of wheat, honey, milk, and the blood of the grape, and oil, and clothing' (Ecclus. xxxix). Herein lies his intellectual delight. It is Natural Science that is his mistress. Knowledge is, for him, above all things progressive. It draws all things one way, according to a practical determination of the will; it goes through from end to end, sweetly ordering all things. It makes of the universe a co-ordinate scheme which can only be understood in its entire sum. All is allotted, measured, fixed, correlated. Each minute detail finds its own peculiar justification by virtue of its coherent relationships, working out to the one harmonious consummation. This is his Ideal of Truth, and it is obviously Butler's also.

And so, too, for this ancient philosophy, the Ideal presented in the sphere of Nature is identical with the moral Ideal. This Wisdom ordereth a man's life according to the same law by which it determines all else. The moral law is the human equivalent of the coherence which knits the universe into unity of purpose; and this same Wisdom, which teaches the circuits of the sun, gives to the man, into whose soul it enters, knowledge of judgement and law, by 'which to frame his life in righteousness, and to execute judgement with an upright heart. She leads him soberly in all his ways; so that his works are acceptable, and he is worthy to sit in his father's seat'.

Butler would delight in bringing the moral life of humanity into this complete accord with the conception of Natural Law. He would have the same confidence in asserting that 'the fear of the Lord—that is wisdom; and to depart from evil—that is understanding'.

Would he imply that all Truth is purposive, and that Thought is only an expression of Will—an organ of Selection?

We are forcing matters by putting such questions to him. He had not such an issue before him. Metaphysic held too paramount a throne for her whole existence to be thus roughly challenged. Butler never doubts her prerogative. Only, he had other interests than hers. He is entirely content to work on what are to her probabilities. He is satisfied with a mode of knowledge by analogy, which is eminently practical; and he has no leisure to examine the logical principles on which the authority of such knowledge must be based.

Sometimes, no doubt, in his scorn for the uninstructed reason he may seem to use language which would deny the validity of all knowledge that was merely critical and dialectical. But, after all, he is only dealing with reason in its treatment of experience; and there he is right in claiming that facts are everything, and presupposition nothing.

So, again, in his examination of Determinism, he can fitly excuse himself from sounding its speculative depths, since, for his purpose, it is enough that, practically, we must act as if we were free.

He has no real occasion to go beyond the frontiers of empirics; and he is glad to take advantage of this limitation. Within these frontiers knowledge is always purposive. It is the exhibition of the real coherence of things in an effective adaptation to a unity of Purpose. On the other hand, Butler gave a universal value to the verdicts of Conscience and Reason, whenever these were in possession of the facts. He never regarded these faculties as mere expressions of an individual mood. He

assumes that their standard has an identity of its own, which does not vary with the experiences to which it is applied. It would be impossible for him to picture reason as merely a sensitive tentacle by which an individual organism pushes its way forward into effective co-operation with its environment.

Is he not, then, one of us? Does he not reflect our own familiar hesitations and limitations? Is he not of our own time and range? We, too, are feeling the full force of these practical values which determine our thinking. We, too, recognize the purposive character of our ordinary intellectual schematization. We, too, are vividly aware of the strange variety of accumulated influences which enter into our practical judgements, and how delicate and manifold a business it is to weigh out, in balances, the forces that, out of a mass of half-conscious experience, focus themselves finally into a verdict.

Who can give to these determinants any fixed logical rule of valuation? What dialectical arithmetic is equal to the subtlety of these calculations? Can we follow the movement of reason to its conclusion, any more than we can track the flight of a bird through the air that closes behind it as it passes? And can we distribute the weight of individual progression, or discount the personal equation?

There are probabilities of every range and scale; probabilities within probabilities. And the intellectual effect that they produce can only be accounted for through the delicacies and intricacies of psychological analysis. And, moreover, there is an unsounded subconscious world pushing upward, by irruption and invasion, and making its own disturbing contribution to the result. So we learn; so we feel; so we know. And Butler would have entered with zest into all this novel psychology of our day, and would have revelled in exhibiting the selective fertility with which our experience created its own values out of the qualities of its moral character and purpose.

And yet Bishop Butler would not, I think, have disguised from himself the fact that this success in estimating truth according to the measure of its practical efficiency is won by confining attention to a limited area within recognized frontiers. It leaves ultimate issues unresolved. It can afford to go on its way without touching them, but it knows that they are there, and will, ultimately, emerge. Butler is aware that a critical examination of the logical values of his argument from analogy is waiting for him in the background, however 'natural and just and conclusive' it is in its practical working. He would know that, finally, the debate would push home its inquiry into the character of those frontiers which it had been content to assume. It would be bound to pass criticism on itself: to challenge the validity of its own experience: to transcend the dualism which experience assumes, and to discover a monism in which both factors found their reconciliation. If knowledge be purposive, yet there must be a criterion of purposes: there must be a distinction in the reality of purposes: there must be an ultimate standard by which to determine what constitutes the truest form of practical efficiency. The knowledge may be symbolic, but the symbols must be graded; and they must be ever approaching nearer to the perfect expression in which the whole of reality is ultimately uttered. After all, we believe in 'the Word that was with God'. These is a Word which is adequate to its function. There cannot be for ever 'the something over' that is unexpressed.

The ultimate problem remains, that is; and the last word of all will still have to be discovered, when all that can be wrung out of psychological and practical valuations has been completed. Butler would not deny this, I would plead, even though he will not seriously concern himself over this ultimate problem, and has little to suggest about it. His own work, his own impressiveness, are done and won in other fields: and those fields are ours, and are at our very doors. In

those same fields we toil and moil, labouring to reduce our bewildering mass of experience to effective order and coherency—labouring to read the secret by which it may be handled with practical efficiency and security of purpose. It might, surely, be an immense relief to us, under the storm and stress of our tremendous task, to have by our side, a fellow worker who sets himself resolutely to our particular business: who is determined to accept every conceivable fact that experience can bring him: who faces all that man is called upon to face, however vast and appalling, however strange and unanticipated, however repellent and grim: and who still emerges confident and self-possessed, utterly convinced of the rightness that is at the root of things, and of the worth of man's conscience and of the validity of man's reason: sure of the light that he follows, of its sufficiency for life's purpose, of its adequacy for all future emergencies, of its power to expand under the gradual advance by which man moves ever onwards from level to level, from task to task, in answer to a voice that invites him to come up higher.

This man, so serious, so anxious, so open-eyed, so relentlessly candid, so deliberate, so reasonable, so real, so unflinchingly true to the facts as they actually are, yet issues out of his long wrestle in the night, possessed of a Vision which never fails him. It holds, for him, the entire Universe together in a coherent and progressive Purpose, stretching from the lowest point of physical existence, through all the grades of Natural Development, up to the highest order of the Spiritual Heaven disclosed to us through the open door of Revelation. One secret makes itself known everywhere: one mind is everywhere reiterating its tireless delight: one pressure sets everywhere towards one far-off event. And into this Vision man is, in his measure, admitted. He can already follow its traces; and according to the faithfulness and love, patience, and courage with which he pursues it amid the perplexities that encumber and beset

his path, he proves his fitness to receive more and more of its growing light. Step by step, he may rise; and still he learns the better use of his faculties and the finer qualities of his craft. If only he will learn, and not dictate; if only he will open out to the instruction of experience, and not strive to impose his own presumption on the facts as they arrive: then, the possibilities before him are inexhaustible. Through time, and through eternity, he will live according to the one law, in obedience to a single process, moving on from glory to glory, in the face of Jesus Christ. The greatness of the glory revealed will, no doubt, as it makes its immensity felt, demand of him an ever-growing recognition of the little that he can cover under his own experience, and of the limitless mystery that lies beyond, elusive and 'imperfectly comprehended'. This necessity will ever demand that his advance in knowledge should carry with it an ethical discipline, shaping a moral character which can endure the limitations incident to such exaltation. The temper that is given in and through Christ can alone suffice to the attainment of this high knowledge. Reason and Religion are, therefore, at one; moral and intellectual growth coincide.

This is Butler's Gospel This is the optimism to which he attained through much tribulation. It is a Gospel that would have commended itself, I am sure, to him whose dear memory is honoured, and preserved to Oxford, by the title of this Lecture. Is there any intellectual Gospel that will more aptly meet our needs, under the strain of a day like our own, darkened by much depression, loaded with heavy burdens, beset with unanticipated bewilderment, and yet conscious of a great hope labouring towards its fulfilment—of a light that can be felt behind the clouds?

OCT 2 5 1966